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**ECONOMIC DEVELOPMENT  
IN S.E. EUROPE**

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# ECONOMIC DEVELOPMENT IN S.E. EUROPE

Including Poland, Czechoslovakia, Austria,  
Hungary, Roumania, Yugoslavia, Bulgaria  
and Greece.

*With an Introduction by*

PROFESSOR DAVID MITRANY

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## FOREWORD BY P E P

P E P commends this study to all who share its conviction that great economic and military power carries with it corresponding responsibilities. The story of the relations between the Great Powers and the smaller nations of South-Eastern Europe does little credit to the former. A reorientation of our ideas and attitudes is overdue.

To that new approach the present study will, it is believed, be a useful contribution. It is the work of a group of experts from the various countries concerned who, under the experienced guidance of Professor Mitrany, have found a basis for collaboration in examining together the common economic problems of their countries in an objective spirit. That such collaboration should be possible is a new and hopeful augury for the future. It is for these reasons that P E P decided to offer such facilities to the Group as it could, and to assume the responsibility of publishing the results of its labours.

Some of the material will not be entirely new to informed British readers. Others have done valuable constructive work on the subject, but seldom if ever before has there been such a painstaking factual examination of the economic problems of the region as a whole. And in the view of P E P the Economic Research Group has not only hammered out a way of approach but has evolved a working model for regional economic advance which is capable of application to several of the world's great backward areas.

The frontier problem of the future, it has been said, is no so much where national frontiers shall be drawn as what they shall signify. To that difficult but vitally important question this study of a typical case suggests at any rate part of the answer, showing how much these countries could benefit, without any political tie-ups, from practical economic and social coöperation.

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## INTRODUCTION

The Economic Research Group, whose studies form the subject matter of this volume, was set up in the autumn of 1941. The Group was small and its work informal; all the countries of the Danubian region were represented in its membership, but the Group was at all times nothing but a private Group; and though some of its members were officials of their respective governments, all took part in the work of the Group simply as private individuals. P E P's rule of anonymity coincides in this case with the wishes of the Economic Research Group, as so many of those who took part in its work hold official positions. But the Group want to use this opportunity to acknowledge the help which it received from the outset from its research secretary, Mr. Oscar Gross. It was in the nature of things, as will be seen from the way in which the Group prepared its papers, that the bulk of the work should fall upon the research secretary. His ability and diligence have been quite invaluable: whatever merit this study has must be credited in no small measure to the work of Mr. Gross.

The Group would have liked also to acknowledge their debt to the individuals and bodies who in one way or another have helped to make this work possible. They can only express the hope that this effort to present a practical and unbiased picture of the problems of a much abused region will justify the encouragement which their work has received on all sides.

The work embodied in this study was set going by a few people who as a body had no set policy beyond the conviction that a better life and goodwill in the Danubian area could be greatly furthered by regional co-operation in practical matters; and who had no ambition beyond the wish to see these matters examined *sine ira et studio*. Political issues and considerations were set aside. Geographical limits to their exploration were imposed solely by the need to have some tangible bounds for an enquiry which was meant to stay firmly on the ground of practical needs and possibilities; and the selection of limited subjects and the whole treatment should make it amply clear that at no time did the group entertain any ideas of political or economic regional segregation, or of regional self-sufficiency, but only of regional self-help. The limiting factor, in other

words, was inherent not in frontiers but in the method; the factual argument would be equally valid, or not, in relation to any other grouping. That P E P should have chosen to issue these studies to a wider public is proof that in this respect, at any rate, the Group has been successful. P E P is not specially interested in the Danubian region as such. But it is greatly interested in practical ways of social improvement, national and international; and it believes that, with local adaptations, the studies of the Economic Research Group may serve as a useful working model for that regional co-operation which is so often advocated and so rarely studied.

The second proof of a successful effort at political detachment is to be found in the very fact that the Group completed the work it had set out to do. There is a view abroad that along the Danube people can quarrel with one another but cannot work with one another. In this Group experts who habitually have to think and act from a strictly national point of view, and none of whom had come to it with any bias for this particular approach, quickly found a new and hopeful interest in looking at their common problems from the angle of possible regional co-operation; and they were able to do so because the problems were considered from the point of view of practical means for definite social ends, rather than from the more habitual one of diplomatic means for uncertain political ends.

The Group's usual method of work was first to discuss each subject in a preliminary way and then have a draft paper prepared by its research secretary. These drafts were then discussed by the Group in detail and revised as often as necessary until they grew into an agreed paper, which was circulated privately to a limited number of individuals and authorities interested in such problems of reconstruction. In the light of comments received from these correspondents or of new material which may have become available in the meantime, the papers were then given a final revision. This will explain why the studies as here printed differ, in some cases materially, from the papers which had been circulated privately.

Those who may have done any work on the subject of this volume will know from their own experience how inadequate is the available material. There is a general scarcity of statistical data, with gaps at important points, such as incomplete statistics on national income. Moreover, the different coun-

tries use different classifications, and this is one obvious field in which regional collaboration could do a great deal not only for the student but also for those engaged in practical work. It need hardly be said that the circumstances of the war have only made these shortcomings worse. All that the Group would claim in that respect is that they have done their best to get at the facts and figures relevant to their study and that they have not consciously neglected any material that was available to them. At the same time they have always chosen to keep to facts and views that were solid, though it meant forgoing the embellishments which also might have been added by using the more speculative figures and fanciful ideas that are not unknown in the realm with which they were concerned. It should be obvious that the only statistical material available was based in every case on territorial divisions as they existed before the war.

The Group was faced from the outset with the question whether they should take account of changes which have taken place during the War. But apart from the fact that information is incomplete and not always reliable, there was also the difficulty that in a number of cases the new statistics were based upon new political or administrative divisions, which therefore were not comparable with the material relating to pre-war conditions. At the same time the Group felt that those war-time changes, however great, will not in the long run alter the region's basic problems or conditions.

Political aspects were left aside by the Group not because they thought them irrelevant but because they knew them to be so insidious that little headway could be made along that road. There are two main reasons for that, one local and the other general. After the fall of the Empires many political issues remained unadjusted in the process of national consolidation; and though relatively small or even trivial, such issues are not easily removed by a frontal attack in a region in which national sensitiveness is still very acute. In the second place, the geographical margins of the Danubian region are not sharply defined, like those of South America or even of the Middle East, and its political problems therefore overlap with those of neighbouring regions—of Central and Eastern Europe, of the Mediterranean and of the Middle East. In such conditions there can be no purely local solution to general political

problems, like that of security, and so on. But even local problems have been complicated or distorted by that open frontier, because they often got tangled up in the struggle for power between the Empires. The Danubian region has not had the good fortune to be protected by a Monroe Doctrine of its own. Its political growing pains have been sharpened, and its peoples stirred against each other, by those outside influences, so that even now friendship between any two of them is apt to rouse suspicion among the others. In such an atmosphere there is clearly little prospect of progress along political lines. But the growth of a habit of working together for practical common ends would mitigate in time the political uneasiness. That there is vast scope for such common practical action soon becomes clear when one looks at the social needs, and economic possibilities, of the region.

The present volume turns its attention precisely to that field of possible and desirable practical action. The whole study was guided by the wish to find out the most promising lines of economic development and the part which regional co-operation might play in this. But whatever restraint the Group as such may have imposed on itself, this Introduction cannot overlook the fact that there are at any rate two political aspects, closely related to each other, which are involved in that aspiration. The study makes it amply clear that the practical improvements it outlines have little chance of being fulfilled unless the resources available are used wisely. The means of the region are, as it is, meagre enough in relation to its needs. Economic and social improvement is not to be hoped for if in the absence of a system of international security so much of those meagre resources has to be used again for military purposes. The study also makes it clear that if any substantial development is to be achieved within the lifetime of this generation the region would need additional capital resources from outside. It must be evident again that such help could not contribute to social improvement if it were, as so often in the past, given for expenditure on armaments or even in the form of armaments. As long as the deficiencies to be made good are so many, and the resources to do it with so limited, it is literally a matter of choice between armaments and implements.

While we are on the subject of foreign help we should add that even when given for economic purposes in the past it was

often given, as was the way of the time, for projects calculated to yield the biggest and quickest return to investors, rather than for the real economic needs of the receiving country, and so for the greater benefit of investors in the long run. If the ideas worked out in this study are, therefore, to have a chance, foreign help in future must be used in ways which will gradually increase the region's ability to produce the things which it can do well and to consume the things which it needs greatly. Only in that way will outside assistance do some good to economic life in the Danubian region and in that measure to the world's economy as a whole. How to do that sensibly is what this study has attempted to show in broad and general lines.

As a start, therefore, a new view is needed of the task which confronts us in undeveloped areas, a view which at least for a certain period would subordinate all other considerations to a policy bent upon improving the social life of the peoples of the region themselves. It is perhaps less difficult for us to take such a view now that we have begun to realize that 'full employment' in Britain and in America will depend in no small degree upon rising standards of living elsewhere. But there are good reasons why such a view imposes itself with special urgency in regard to South-Eastern Europe. In the first place, the social reclamation of that much neglected region is admittedly an essential factor in European progress. Apart from that, whereas the Middle East, the Far East, Latin America; etc., still have room for an expanding population, South-Eastern Europe is facing in fact an opposite situation. Not only is there no further land available for expansion, but at the same time the immigration policy of overseas countries has practically closed the outlets for the region's surplus population. The figures given in the Appendix (page 128) show how the yearly emigration from the area with which we are concerned was moving towards the half-million mark immediately before the first World War, and how it had fallen to less than a tenth of that mark in the years before this War. That means that henceforward the region must develop intensively so as to find an outlet on the spot for the overflow of its rural population.

What has been said above will also explain why no reference is made in these chapters to the question of land distribution. A land reform is still due in Hungary; but in the other coun-

tries the land reform policies after the last War did expropriate the large estates and over the greater part of the area have already put most of the land in the hands of the peasants. The other sides of agrarian organization, however, have hardly been touched so far. Therefore, generally speaking, the real problem is not so much one of land distribution as of land utilization. Here again the two chapters on Nutrition and on Agriculture examine the more suitable line of advance, in the light of practical ends; always keeping in mind, as is done also in the chapter on Industrial Development, what no student of the region should forget, namely that no line of development can be sound which neglects the pivotal problem of population.

The Group have felt it to be outside the scope of their work to attempt to lay down the machinery by means of which the various ends might be achieved. But given the nature of the whole approach perhaps one may be permitted in this Introduction to advance the personal view that that machinery is best which is best adapted in each case to the particular task. Such regional experiments as research stations, etc., probably would work best as official agencies, set up and controlled jointly by the respective governments; and one can conceive of similar offices for the organization of trade in special products. Those activities which would require capital development and economic operation could, on the other hand, be furthered best through autonomous semi-public corporations of the kind which in similar cases are finding increasing favour in the West. Power development, for instance, as well as some joint organization for shipping on the Danube, are obvious cases in point; and this could be brought about without regard to the fact that in some countries these services may be publicly owned, and in others are in private ownership. Such corporations would have the advantage of being able to use foreign capital without fear of finding it tied to political strings, and they could give local service without getting entangled in local politics. Autonomous operation could also cut through one of the worst handicaps of public service in the region by being in a position to choose executive and technical personnel on the merit of their qualifications; as they would of necessity perform their task in answer to real needs and not to the pressure of sectional interests. It should also be obvious that such functional organisations need not conform to any rigid regional

model, but could be adapted to the natural dimensions of the task with which they would be charged. But in general, questions of machinery are not difficult to solve when the will and the means for action are there. It should perhaps be explained that for the same reason the study does not discuss the important question of co-operative organisations, though their value especially in the rural regions could hardly be over-estimated. Discussion of foreign trade was left out for a different reason, namely because it is tied to wider international questions and to the economic policies of the leading industrial countries.

Another omission was not deliberate but was rather imposed by circumstances which the Group regret: that is the whole matter of social services. The problem was discussed by the Group on the basis of an interesting preliminary paper, but they had to come to the conclusion that the material available here was not sufficient for a proper study of the subject, and also that the diversity of conditions in various parts of the region was too great to make a uniform treatment suitable. (Certain information on health conditions, etc., will be found in the Appendix, page 127). Conditions vary very greatly between the western and eastern parts, and also between town and country, especially in the less developed areas. Both points are strikingly illustrated by the fact, to give one instance, that Roumania has 4.6 doctors per ten thousand inhabitants, but only 1.1 in the rural districts (this figure, it is interesting to note, being the same as in India). The reader will no doubt notice that in considering the several problems emphasis was laid on the less developed parts of the region, so as to bring out the more characteristic aspects of its problems and the more typical differences from conditions in the West. The more characteristic problems are those which concern the peasants; so must be the chief solutions, not only those which might ease the rural problem by industrialization, but above all those which would give the peasant a chance to raise his conditions of work and life in his own habitat.

If the question were asked whether the East European peasant could be raised to the economic level of the Danish peasant, the writer would feel that there is no reason why in good time he should not improve himself in that degree. But certain conditions, depending on public action, are indispensable, and urgent if the standard of rural life in eastern Europe is



to be raised. As this study shows, one condition is improved transport, so as to open up the village; then a generally improved administration; and as a third and crucial condition, much improved education. If the peasant is to be able to make good use of modern methods of farming, of co-operative arrangements, and so on, education must clearly be more than a matter of literacy. It is not too much to say that hitherto such education as has been provided has on the whole rather weakened the village. It has done little to adapt the peasants to life and farming in scattered rural communities, and it has tempted the abler of the young villagers away to the towns and to the professions. This has had the additional result that most of the countries of the region were burdened with a restless intellectual proletariat. It is interesting to find, for instance, that in 1925 the United Kingdom had 10.7 university students per ten thousand people and Roumania 6.8, but that by 1932 the proportion had changed to 12.1 and 19.7 in the two countries. Moreover, the bulk of those students flooded the faculties of law and arts, with a corresponding number of graduates afterwards clamouring for official jobs. Only a very small proportion went in for scientific and technical studies; hence among other things the region will need from the West in the years after the War the loan of technical personnel, both for executive work and for the training of local elements.

The fact that the problem of social services has received only passing reference in the last chapter will not therefore be taken as a sign that the Group did not give them great importance; they were left out because the Group found that they could not give them the careful examination which they deserve. They would put education and other social services very high indeed in their estimate of the region's needs; and their whole treatment of the subject shows that they approached their work not so much from the point of view of 'national economy' but rather, if one may make the contrast, from that of 'social well-being'.

Hence the views here presented, apart from the practical value of the details, are important as reflecting a general attitude. This is of moment both to the peoples of the region and to those outside who might come to be concerned with policy for reconstruction. It is because the well-being of the peoples of the region was throughout implicit in their approach that

the members of the Group were able to work so well together. Passionate argument there was, but it was argument about problems, and about ways and means, not about power and its division. They were inspired throughout and at every point by a broad social point of view rather than by one narrowly economic; and that is the point of view which must also inspire any future international action. This is indeed a case in which a measure of idealism is the best practical policy. For it would also offer a more fruitful and secure prospect for the outlays of the West, because they would be not a speculative investment but a lasting endowment of the region's life and work.

DAVID MITRANY.

*September, 1944.*

## CHAPTER I

### NUTRITION

The standard of nutrition prevailing in a country is, as a rule, a reliable guide to that country's economic development. When its economy is relatively undeveloped, the part of the national effort spent on food production is proportionately larger. In Yugoslavia, Roumania and Bulgaria, for instance, some 70 per cent of the total working population had to be employed in producing the food which the nation needed. Or to put this point in terms of family effort, in the Balkans the average household had to devote about two-thirds of its income (in real terms) to the satisfaction of its needs in food. Therefore, an examination of the nutrition problem in the area dealt with in this Report, besides being important in itself, provides a convenient and central starting point for a survey of the whole problem of economic and social development in the area.

#### INCOME AND NUTRITION

Before considering the level of nutrition in the several countries, it may be helpful to have some idea of their general standard of living. One convenient criterion is the national income per head of population. The figures available for the countries in question are neither accurate nor strictly comparable, but they may suffice for a rough illustration:

#### NATIONAL INCOME

COUNTRY	YEAR OF ESTIMATE	APPROX. NAT. INCOME PER HEAD IN U.S. \$
Poland . . . . .	1937	90-100
Czechoslovakia . . . .	1937	150-160
Austria . . . . .	1935	150-160
Hungary . . . . .	1937	90-100
Roumania . . . . .	1937	60- 70
Yugoslavia . . . . .	1937	55- 65
Bulgaria . . . . .	1935	55- 65
Greece . . . . .	1937	60- 70

*Sources:* League of Nations, World Economic Survey 1937/8, and private estimates.

Without entering at this stage into the intricacies of international comparisons of real income and expenditure on food, it may be said that, roughly speaking, real income per head in the countries of the area ranged from one-fifth to two-fifths of that in Great Britain. Expenditure on food, in terms of food purchasing power, may be taken to have ranged from one-third of Western figures in the Balkan countries to one-half in Austria and Czechoslovakia.

These figures, although given merely by way of illustration, and without any claim to accuracy, explain why the Mixed Nutrition Committee of the League of Nations could describe East and South-East Europe as an area where "malnutrition prevails extensively and there is often a lack of staple foods as well."

That the level of nutrition was inadequate is also borne out by the high incidence of deficiency diseases, especially in the poorer districts. Pellagra and anæmia were widespread in Roumania; rickets were prevalent in Bulgaria; scurvy, rickets, night blindness, and anæmia were common in Yugoslavia after the end of winter. The high infant and child mortality can also be traced back largely to inadequate nutrition. Some figures are given below.

#### CHILD MORTALITY

	INFANT MORTAL- ITY RATE <sup>1</sup> YEAR: 1937	DEATH RATE FOR CHILDREN <sup>2</sup>		
		AGE		YEAR
		1 to 4	5 to 9	
Poland. . . . .	1,360	N.A.	35	1933/4
Czechoslovakia . . .	1,220	92	29	1930/2
Austria . . . . .	920	60	26	1933/5
Hungary . . . . .	1,340	98	23	1937
Roumania . . . . .	1,780	N.A.	N.A.	
Yugoslavia . . . . .	1,410	N.A.	N.A.	
Bulgaria . . . . .	1,500	299	39	1933/6
Greece . . . . .	1,130	322	62	1927/9
Denmark . . . . .	660	32	12	1937
Sweden . . . . .	450	35	15	1937

<sup>1</sup> Deaths under one year per 10,000 living births.

<sup>2</sup> Deaths per 10,000 of population in the respective age groups.

Source: League of Nations, Statistical Year Book.

More direct evidence of deficient nutrition is supplied by an examination of family diets. The International Labour Office published figures for Poland, Czechoslovakia, Austria, Hungary and Bulgaria based on sample investigations. These investigations were carried out among urban working-class families, in some cases only among small groups. The figures are given below, together with comparative figures for Denmark and Sweden.

CONSUMPTION OF INDUSTRIAL WORKERS  
(PER CONSUMPTION UNIT (ADULT MALE) PER YEAR)

	AUSTRIA (1934)	CZECHOSLOVAKIA (1931-2)	POLAND (1929)	HUNGARY (1929)	BULGARIA (1927-28)	DENMARK (1931)	SWEDEN (1939)
Bread and Cereals . (kilos)	141.4	157.9	218.9	170.5	281.5	112.4	114.5
Meat and Fish . (kilos)	52.7	40.1	51.1	28.4	37.5	60.4	67.4
Fats and Oils . (kilos)	20.7	16.0	3.3	15.6	9.5	20.5	13.1
Milk . (litres)	158.6	154.5	83.3	113.1	30.7	105.6	258.3
Butter . (kilos)	3.9	3.8	3.4	0.8	0.5	9.6	11.9
Eggs . (number)	191	169	57	80	70	227	238
Potatoes . (kilos)	56.2	100.5	202.1	72.1	19.1	92.6	114.9
Vegetables and Fruit (kilos)	100.1	70.9	64.2	88.6	113.2	8.2	52.9
Sugar . (kilos)	25.7	29.8	21.1	22.0	11.5	35.0	43.2

Source: International Labour Office, Year Book of Labour Statistics, 1942.

It should be added that all the figures quoted are for diets of industrial workers. Contrary to a widespread belief, the nutritional standard of peasant small holders and, in particular, of agricultural workers, is usually on a lower level. In Hungary—where the number of agricultural workers was largest—milk and eggs were completely lacking from the diet of 15 per cent of all agricultural families.

The following figures for a Roumanian peasant's diet are taken from "Food and Planning," by Dr. J. R. Marrack.

GRAMMES PER CONSUMPTION UNIT PER DAY

	Summer	Winter
Cereals . . . . .	1,091	781
Meat and Fish . . . . .	69	94
Lard and Oil . . . . .	19.4	15.4
Milk . . . . .	231	26
Butter . . . . .	8.9	1.3
Cheese . . . . .	20.4	15
Eggs . . . . .	1	0.2

The salient feature of the nutrition standards reflected in the figures given above is the inadequacy of animal proteins, due to the higher cost of this food group. The following figures on the distribution of expenditure on food at varying levels of income will illustrate the point:

EXPENDITURE ON FOOD

	BREAD AND CEREALS	MEAT AND FISH	MILK AND MILK PRODUCTS	VEGE- TABLES AND FRUIT (incl. Potatoes)	OTHER FOODS
Low Income:	%	%	%	%	%
Bulgaria . . . . .	36.4	17.4	11.4	13.6	21.2
Medium Income:					
Austria . . . . .	19.0	22.6	17.7	11.2	29.5
High Income:					
Sweden . . . . .	14.4	21.3	27.5	9.9	26.9

Source: International Labour Office, Year Book of Labour Statistics, 1942.

The low consumption of animal products accounts also for a deficiency in calcium and in those vitamins obtained from, or with the help of, such products. Even in Czechoslovakia, where nutrition standards were among the highest in the area, the average diet supplied only 53 per cent of the estimated requirements in vitamin A.<sup>1</sup> In the Balkan countries the intake of vitamin B and C was also inadequate, as evidenced by certain deficiency diseases. In summer sunlight made up for the deficiency in vitamin D.

<sup>1</sup> Czechoslovak Medical Association, Bulletin No. 4. See also Appendix, page 134.

There were, in addition, seasonal fluctuations in diet due to lack of facilities for the storage of perishable foodstuffs. This aspect of the problem will be considered further in the chapter on marketing. It may be noted here, however, that in rural areas of the Balkan countries canned food was hardly consumed at all.

### THE ELEMENTS OF A NUTRITION POLICY

The above figures give some idea of the extent of malnutrition in the countries under consideration. But a different basis is required for the purpose of a nutrition policy and of a co-ordinated production programme. The relevant figures are those on average consumption per head of population, a comparison of which with a "desirable" standard will bring out the deficiency in terms of staple foodstuffs.

A tentative estimate on this basis is worked out in the table below. We have taken as a basis of comparison the diet "at relatively economic cost" recommended by the U.S. National Research Council and used by the Hot Springs Conference

ESTIMATED CONSUMPTION OF THE MAIN FOODSTUFFS PER HEAD OF POPULATION (Kilos per Year)

	"DESIRABLE" DIET <sup>1</sup> (Plan I)	POLAND	CZECHOSL.	AUSTRIA	HUNGARY	ROMANIA	YUGOSLAVIA	BULGARIA	GREECE
Wheat & Rye	104	178	125	148	250	110	122	195	153
Maize . . .		— <sup>2</sup>	10	— <sup>2</sup>	— <sup>3</sup>	130	105	— <sup>2</sup>	15
Potatoes . .	82	(230)	115	130	100	48	60	16	15
Sugar . . .	16	12	23	20	11	5	5	3	9
Meat (all kinds)	41	22	31	33	26	17	16	21	16
Milk and Cheese	217	110	122	142	(90)	(70)	(75)	(85)	(75)
(Milk equivalent, in litres)									
Butter . . .	23	3	5	5	2	1	2	1	1
Animal Fats & Vegetable Oil		5	13	10	12	10	7	7	15
Eggs (numbers)	228	110	136	119	95	90	75	80	76
Vegetables and Fruit . . .	137	(68)	(80)	(77)	(68)	(60)	(60)	(75)	(60)

<sup>1</sup> Recommended by the National Research Council, U.S.  
Figures in brackets are largely conjectural.

<sup>2</sup> Negligible

(Plan I). The figures in question are given in the first column of the table. For the computation of actual consumption before the war, in the absence of relevant statistics, we have used statistics of production, making allowance for exports and imports, as well as for quantities estimated not to have been used for human consumption.

The figures are self-explanatory, but special attention should be drawn to those relating to the consumption of milk, which are usually indicative of the general level of nutrition. Compared with a recommended consumption of 217 litres per year in the standard diet mentioned above, actual consumption may be estimated as follows:

CONSUMPTION OF MILK AND MILK PRODUCTS  
IN TERMS OF LIQUID MILK

	YEARLY CONSUMPTION PER HEAD	NECESSARY INCREASE IN PERCENTAGES IN ORDER TO REACH PLAN I LEVEL
	Litres	%
Poland . . .	110	97
Czechoslovakia . .	122	78
Austria . . .	142	53
Hungary . . .	90	141
Roumania . . .	70	210
Yugoslavia . . .	75	189
Bulgaria . . .	85	176
Greece . . .	75	189

Clearly, the very scale of the actual deficiency in protective foods and its variation from country to country show that the diet recommended cannot be adopted as an immediate practicable objective throughout the region. It will be necessary instead to consider intermediate targets; and these would have to be adapted in each country to existing dietary habits, differences in climate, local conditions of production and to other considerations. The elaboration of these figures would require further investigation by nutrition experts. It would call also for more accurate knowledge about existing livestock than is available at the moment. (According to present information, animal proteins may, for some considerable time to come, be in even shorter supply than before the war.)



To work out a specific immediate target for the countries of the region would in these circumstances be too speculative. But the long-range aims of a nutrition policy are sufficiently clear. The goal must be a substantial increase in the consumption of meat and dairy products, especially of milk; a somewhat less sharp but still considerable increase in the consumption of fruit and vegetables; and on the other hand, a corresponding decrease in the consumption of bread and, in particular, of maize and potatoes as staple foods.

The implication of such changes for agricultural production will be examined in greater detail in the next chapter. Meanwhile the provisional conclusions may be summed up as follows. The problem of nutrition in the countries of the region goes far beyond any question of mere shifts in diet or in agricultural production from one kind of food to another. Any appreciable improvement in the standard of nutrition calls for major changes in at least four separate spheres:

- (i) improved agricultural production;
- (ii) improved methods of food distribution;
- (iii) an increase in the national income by development in other fields, especially industry;
- (iv) a better distribution of real income through appropriate fiscal policies and the provision of social services.

These conclusions provide the main subjects for our further investigation.

(For further statistical information on the subject, see Appendix).

*Sources* (in addition to those quoted in the text):

National Statistics.

German Statistical Year Book 1938, International Appendix.

League of Nations, Statistical Year Book, 1940.

League of Nations, Nutrition, 1937.

United Nations Conference on Food and Agriculture, Final Act and Section Reports. H.M.S.O. Cmd. 6451 and 6461, 1943.

## CHAPTER II

### FOOD AND AGRICULTURE

What are the implications of the nutrition policy outlined in the previous chapter for agricultural production? As has been shown before, the main change called for is an increase in animal products—milk, eggs, meat and fats. To reach the “Plan I” standard of the U.S. National Research Council,<sup>1</sup> the output of these products would have to be increased by 55 to 70 per cent for the area as a whole. Even a lower intermediate standard with local variations might require an increase of anything between 25 and 40 per cent.

Clearly, a production problem of this size could not be solved by feeding to animals part of the grain previously used for human consumption so as to convert it into nutritionally more valuable foodstuffs. As in the process of conversion at least four-fifths of the calorific content of the vegetable foods is lost to human consumption, there would be little scope for changes of this kind when even the basic calorific requirements can only be met with difficulty. By the same token any attempt to turn over land used for growing bread grains to feed crops would soon reach a limit where the supply of the former would be endangered.

It is important to keep this relationship between acreages necessary for vegetable and animal products clearly in mind when considering ways and means for the realization of a sound nutrition policy. The suggestion is sometimes heard that if the food exporting countries of the area were to cease exporting foodstuffs, their nutritional needs could be covered without any substantial change in their agricultural production. Now, quite apart from the broader aspects, and in particular from the effects on the balance of payments, it could be easily shown that, converted into animal products, the quantities of vegetable foodstuffs normally exported remain far below the established nutritional deficiencies. The yearly net food exports of the eight countries before the war (including intra-regional exports) may be estimated as representing, on the average, a

<sup>1</sup> Plan I is the lower of two standards recommended by the U.S. National Research Council; it is described as “relatively economical” for U.S. conditions. See also Appendix, pages 132-133.

total acreage of some 3 million hectares<sup>1</sup> out of an agricultural area then totalling 87 million hectares. As against this, the raising of milk production alone to the level of Plan I would claim—on the basis of the pre-war population figures—3.5 million hectares as a minimum estimate.

Hence, the key to the problem, so far as action in the sphere of agriculture is concerned, can only be an increase in output. One way to increase output is to increase the area under cultivation through land reclamation and other ameliorations. Important as such improvements are, the practical possibilities of applying them in the area are not extensive in relation to requirements. They are further limited by the high capital cost of such projects. Moreover, the gradual expansion of farm land so obtained would be largely offset by the natural increase in population.

The main line of action remains, therefore, the raising of output per unit of labour and per unit of land used. The scope of possible action is indicated by the fact that in South-East Europe one peasant grows food sufficient for  $1\frac{1}{2}$  persons, whereas the proportion in Western Europe is one to four; the cereal yield per hectare is about 37 per cent of that obtained in Denmark. It is necessary to examine the causes for this state of affairs before formulating any concrete recommendations.

#### AGRICULTURAL LABOUR AND FARM OUTPUT

Because of the prevalence of the family type of peasant economy it is impossible to establish the number of persons actively engaged ("gainfully employed") in agriculture. Existing statistics are based on arbitrary methods, and are not suitable for comparison. A broad indication may be obtained, however, from figures relating to the density of the total agricultural population.

The following figures point to a state of agricultural overpopulation on a serious scale in Bulgaria, Greece, Poland, Yugoslavia and Roumania; and, on a lesser scale, even in Czechoslovakia and Hungary. The extent of overpopulation cannot be estimated by a mere comparison of the density figures; it is a function, among other things, of the fertility of the soil and the type of farming practised. While the various expert

<sup>1</sup> 1 hectare equivalent to 2.47 acres.

## DENSITY OF AGRICULTURAL POPULATION

	AGRICULTURAL POPULATION PER 100 HECTARES OF AGRICULTURAL AREA	AGRICULTURAL AREA PER HEAD OF AGRICULTURAL POPULATION	PERCENTAGE OF POPULATION DEPENDENT ON AGRICULTURE AS THE MAIN SOURCE OF LIVELIHOOD
		(hectares)	
Poland . . .	82.1	1.2	60.8
Czechoslovakia . .	66.7	1.5	36.6
Austria . . .	42.3	2.4	27.4
Hungary . . .	62.2	1.6	52.0
Roumania . . .	73.6	1.3	68.4
Yugoslavia . . .	76.2	1.3	70.0
Bulgaria . . .	100.0	1.0	72.2
Greece . . .	90.9	1.1	46.4
Average for whole region . . .	77.4	1.4	55.5
Germany . . .	48.0	2.1	20.7
France . . .	45.2	2.2	37.2
Denmark . . .	37.3	2.7	31.1

estimates based on different methods disagree about the figure for the several countries, by and large they show an agricultural overpopulation (as for 1938) of at least 20 per cent for the area as a whole.

The existence of agricultural overpopulation on such a scale has important bearings on agricultural production. One consequence is that the resulting under-nutrition and other effects of the low family income impair the efficiency of labour. Another consequence, the excessive splitting-up of holdings, has an even more direct effect on production by making rational cultivation impossible. But it is not proposed to dwell here on the social and agrarian aspects of the matter and on its relation to land tenure. Even from the narrower angle of increased agricultural production the transfer of a considerable part of the population from agriculture to other occupations is an essential condition of improvement.

## LAND UTILIZATION AND AGRICULTURAL YIELDS

In 1938, the latest year for which figures are available, the utilization of land was as follows:

	(1) TOTAL AGRI- CULTURAL AREA (000 HA.)	(2) PASTURE AND NON- ARABLE CROPS AS % OF (1)	(3) ARABLE LAND AS % OF (1)	(4) TOTAL ARABLE LAND (000 HA.)	(5) CEREALS AS % OF (4)	(6) FIELD CROPS AS % OF (4)	(7) ROOT CROPS AND VEGE- IN FIELDS AS % OF (4)	(8) OTHER CROPS AND FALLOW AS % OF (4)
Poland . . .	25,590	27.5	72.5	18,560	63.6	7.2	18.6	10.6
Czechoslovakia . . .	8,360	29.9	70.1	5,860	60.3	15.9	19.2	4.6
Austria . . .	4,360	54.8	45.2	1,970	50.9	10.2	17.2	12.7
Hungary . . .	7,560	25.8	74.2	5,610	74.9	8.2	9.4	7.5
Roumania . . .	18,450	27.2	72.8	13,440	83.9	5.1	3.0	8.0
Yugoslavia . . .	14,440	47.7	52.3	7,550	81.9	3.7	5.9	8.5
Bulgaria . . .	4,570	10.5	89.5	4,090	68.2	1.7	2.7	27.4
Greece . . .	3,630	39.4	60.6	2,200	77.7	3.2	3.2	15.9

Compiled from Year Book of Agricultural Statistics, International  
Institute of Agriculture, Rome.

For the realization of a nutrition policy on the suggested lines the planned utilization of the land is of primary importance. We cannot here do more than outline the broad requirements, and examine what major changes would be needed in the existing land utilization and how such changes could be brought about.

According to an American estimate,<sup>1</sup> the realization of a nutrition standard corresponding to Plan I would demand the following distribution in the use of land (in round figures):

	per cent
GRAINS: (a) for human food . . .	18
(b) feed grain . . .	46
	—
	64
Meadow, Pasture and Fodder Crops . . .	29
Root Crops . . .	2
Vegetables and Fruit . . .	5
	—
	100
	—

<sup>1</sup> National Research Council, quoted by *Fortune*, November 1943

Although these figures refer to American conditions, in the absence of a more detailed investigation of conditions in our area they may suffice as a basis for a broad comparison. The figures on land utilization in the region before the war—which are given in the Appendix—show approximately the following break-up:

	per cent
Grains . . . . .	54
Meadow, Pasture and Fodder Crops . . . . .	35
Root Crops . . . . .	7
Vegetables and Fruit . . . . .	4

At first sight, therefore, the existing utilization was not unfavourable for the carrying out of the proposed nutrition policy. It must be pointed out, however, that the land classified as meadow and pasture—which covers some 29 per cent of the total agricultural area—included a large proportion of uncultivated pasture, in some cases mountainous areas of low fertility. Measured by output, one hectare of pasture in Yugoslavia or Greece represented less than one-third of that in, say, Austria. Moreover, in certain countries the proportion of grassland is much below the over-all figure for the area.

#### RATIO OF GRASS TO ARABLE LAND

Austria . . . . .	1 : 0.9
Yugoslavia . . . . .	1 : 1.2
Greece . . . . .	1 : 1.9
Czechoslovakia . . . . .	1 : 2.5
Poland . . . . .	1 : 2.9
Roumania . . . . .	1 : 3.1
Hungary . . . . .	1 : 3.5
Bulgaria . . . . .	1 : 5.1

Hence in the greater part of the area an expansion of live-stock and dairy farming would have to be based rather on an increased production of field fodder crops (e.g., lucerne and clover); so far as the production of pork, pig-fat and eggs is concerned, it could be largely based on grains. The great advantages of a regional organisation of production and distribution, i.e. area specialization and freer intra-regional exchange in grains and fodder crops, are specially clear in this connection.

The part of agricultural production which calls for the most important long-term change is that concerned with cereals.

As has been seen, the area under cereals takes more than 50 per cent of the total agricultural area, and in the case of Roumania and Yugoslavia over 80 per cent of the arable land; yet it produces grains only sufficient for the existing nutrition standards, plus an export which, even if it were retained, would be wholly inadequate to bring about any substantial improvement in the diet. As there is no room for increasing the area under cereals, to secure the quantities required for animal feeding it would be necessary to grow a much greater amount of grains and other arable feed crops on the same, or if possible even on a smaller, area. That leads us to the wider question of cereal yields.

Reference has already been made to the low yield per hectare obtained in parts of the area. The position may be illustrated by the following figures giving average yields for the period 1929-33:

YIELDS PER HECTARE (QUINTALS)<sup>1</sup>

	WHEAT AVERAGE (PER HECTARE)	MAIZE AVERAGE (PER HECTARE)	AGRICULTURAL POPULATION PER 100 HECTARES OF ARABLE LAND
Poland . . .	11.5	9.5	126
Czechoslovakia . . .	17.8	17.2	87
Austria . . .	15.2	20.7	93
Hungary . . .	13.9	16.0	80
Roumania . . .	10.6	11.7	94
Yugoslavia . . .	12.7	15.8	133
Bulgaria . . .	11.7	12.2	114
Greece . . .	7.6	8.3	122
Germany . . .	19.1	N.A.	71.4
France . . .	14.8	N.A.	75.3
Denmark . . .	25.8	N.A.	44.1

<sup>1</sup> One quintal per ha.=0.797 cwt. per acre.

The true significance of these figures becomes plain only when they are taken together with the number of persons actually engaged in producing the output. No exact figures can be given (for the reasons already stated), but the density of the total agricultural population in relation to arable land

(given in the third column) offers some basis of comparison. Another illustration is provided by the fact that whereas yields in the middle sector of the range are about the same as average yields in the United States—where the large spaces favour extensive farming—the average output in cereals per person engaged in agriculture was about 15 quintals, as compared with 90 quintals in the United States.

That disproportion in itself would make an increase in yields essential if the standard of living is to be raised. But in the present context the need for increased yields per hectare arises from the practical consideration that, at the prevailing yields, no single country in the area could grow sufficient food to reach even an intermediate nutrition standard on the suggested lines. It has been calculated that on the basis of present American yields for cereals and animal products the American Plan I standard would require an agricultural area of slightly under one hectare per head of total population.<sup>1</sup> Taking the region as a whole, the total agricultural area before the war was equivalent to 0.76 hectare per head. If allowance is made for the poorer quality of grassland in many parts of the region, and for the lower output of milk and eggs per animal—to be discussed in more detail later—it is safe to say that an over-all increase of at least 40 per cent in cereal yields would be necessary to ensure a nutrition programme corresponding roughly to Plan I of the National Research Council. Such an increase would also allow the maintenance of food exports on the pre-war level, with the possibility of changing over from the export of cereals to other foodstuffs.

An average increase of 40 per cent in cereal yields, which would, of course, involve an even higher increase in the more backward parts of the area, is a task the realization of which may well demand several decades. It is therefore evident, as has been stressed already in the chapter on nutrition, that for all practical purposes it is necessary to work with intermediate standards.

Before considering the means by which the necessary increase in yields might be obtained, it will be useful to examine the main causes responsible for the existing state of things. Agricultural overpopulation and its consequences have already been mentioned. On the 'dwarf' holdings of Roumania and

<sup>1</sup> *Fortune*, November 1943.



Yugoslavia, split up in very small lots, a cereal yield equivalent to 6 quintals per hectare, and even less, is a common occurrence. Natural causes such as insufficient or irregular rainfall, and in many cases poor soils (whether poor by nature or made so by erosion) are another major cause. The effect of climatic fluctuations can be seen in the excessive year-by-year variations in yields. As the more detailed figures in the Appendix show, yearly fluctuations of 20 per cent were quite common, and over a ten-year period deviations were recorded of 40 per cent above and below the average.<sup>1</sup>

### TECHNICAL FACTORS

Here, however, certain technical factors must also be taken into account. Experience in Western Europe shows that the use of artificial fertilizers, even in small dressings, has a levelling effect on crop yields. So far as the area is concerned, except in Austria and Czechoslovakia, fertilizers are hardly used at all.

#### USE OF ARTIFICIAL FERTILIZERS, 1930-40 (Kilos per hectare of arable land)

	NITRATES	PHOSPHATES	POTASH
Poland. . . .	1.1	2.3	1.4
Austria . . .	2.5	6.6	3.3
Czechoslovakia . . .	4.4	8.9	5.0
Hungary . . .	0.1	0.9	0.1
Yugoslavia . . .	0.1	0.4	0.1
Roumania . . .	0.02	0.06	0.01
Bulgaria . . .	0.01	0.00	0.00
Greece . . .	1.1	2.8	1.0
Germany . . .	18.0	21.4	31.3
France. . . .	7.0	17.6	8.7
Denmark . . .	10.7	24.1	7.9

The second technical factor closely affecting yields is the quantity and type of equipment used. Equipment other than ploughs and harrows was in very limited use in the Balkan countries, as may be seen from the following fragmentary figures for some of the countries of the area:

<sup>1</sup> See Appendix, page 138.

## AGRICULTURAL IMPLEMENTS AND MACHINES

	YEAR OF CENSUS	ARABLE LAND HA.	TRAC- TORS	PLOUGHS	DRILLS	REAP- ERS AND BINDERS	THRESH- ERS
		(000)	(000)	(000)	(000)	(000)	(000)
Czechoslovakia . . .	1930	6.0	4.3	N.A.	223.4	161.8	N.A.
Austria . . .	1930	1.2	0.9	N.A.	N.A.	N.A.	N.A.
Hungary . . .	1933	5.5	3.8	N.A.	N.A.	N.A.	N.A.
Roumania . . .	1935	14.0	3.3	2,093.0	42.0	55.0	13.4
Yugoslavia . . .	—	—	(1.0)	(850.0)	—	—	—
Bulgaria . . .	1931	3.5	1.6	370.0	7.2	8.3	3.4
Greece . . .	1929	1.1	N.A.	528.8	0.2	3.5	0.6

N.A.—Not available.

*Source:* Buletinul Informativ, Roumanian Ministry of Agriculture.

The value of all agricultural equipment used per hectare of arable land was estimated by a Roumanian source at Lei 1,000 (about £1) for Roumania, Lei 2,000 for Bulgaria, Lei 3,000 for Poland; as against Lei 15,000 for Germany and Lei 42,000 for Switzerland.<sup>1</sup> So far as mechanical equipment is concerned, the disparity was even greater. According to a German source,<sup>2</sup> taking the mechanical equipment per hectare of farm land (in terms of weight) as 100 for Germany, the figure for Bulgaria would be 14, for Yugoslavia 5, for Roumania 3<sup>3</sup>.

The problem of farm equipment again leads back to the question of agricultural organization, as the 'dwarf' holdings prevalent in many parts of the area cannot economically use, or for that matter afford, anything but the most rudimentary equipment. This aspect comes out clearly when considering the number of ploughs and draught animals before the war. In Roumania, for instance, their number was more than sufficient in relation to the total arable land: one plough per 6.6 hectares, one pair of draught animals per 10.5 hectares. Yet a sample investigation carried out in 1937 showed that out of 11,959 small holdings 5,595 had no plough; in the Old Kingdom of Roumania 43 per cent of all holdings below 5 hectares had no

<sup>1</sup> V. N. Madgearu, *The Development of Roumanian Economy* (in Roumanian), 1940.

<sup>2</sup> *National Zeitung*, Essen, 3rd Nov. 1943.

<sup>3</sup> It may be added in parenthesis that the number of tractors and other farm equipment has since the beginning of the war considerably increased in some countries, especially Roumania and Bulgaria.

draught animals. In Bulgaria, 200,000 out of 885,000 holdings used no draught animals in the agricultural year 1933-34. 166,000 holdings owned no equipment of any kind. In Yugoslavia, out of every 1,000 peasants only 483 possessed iron ploughs, 138 had wooden ploughs, 379 owned none at all.

The crop rotation systems in use were also primitive. The ordinary two- and three-crop rotation (i.e. grain-grain, and grain-grain-fallow) is still the most widespread. Root crops were cultivated in insufficient quantity, a comparatively large part of the arable land being kept fallow. Maize was grown as a substitute root crop—hence the prevalence of wheat-maize rotation in the Danube countries—without possessing, however, the same properties from the viewpoint of rotation. It should be added that the prevailing rotation systems are closely connected with the deficiency of farm equipment. The insufficiency of natural manure, the lack of fertilizers, and inadequate tilling due to poor equipment render the soil unsuitable for intensive cultivation of root crops.

#### PROBLEMS OF LIVESTOCK FARMING

It must be clear from the foregoing that any improvement in livestock—essential as it is both from the viewpoint of a sound

LIVESTOCK DISTRIBUTION (1938)

	LIVE- STOCK UNITS <sup>1</sup>	HORSES AND MULES	HORNED CATTLE	PIGS	SHEEP AND GOATS
	(000)	(as percentage of livestock units)			
Poland .	16,360	24.0	64.5	9.2	2.3
Austria .	3,480	7.1	74.5	16.5	1.9
Czechosl. .	6,580	10.7	75.0	11.6	2.7
Hungary .	3,490	23.5	53.9	17.8	4.8
Yugoslavia .	7,600	18.5	56.6	9.1	15.7
Roumania .	8,460	25.7	51.2	7.5	15.6
Bulgaria .	3,780	19.9	49.6	4.8	25.8
Greece .	3,320 •	28.6	31.2	2.6	37.6
Germany .	28,790	12.0	69.2	16.3	2.5
France .	21,190	14.2	73.8	6.7	5.3
Denmark .	4,400	12.8	73.6	13.1	0.5

<sup>1</sup> 1 livestock unit equivalent to 1 horse or cattle, 5 sheep or 10 goats.

nutrition policy and from that of an increased agricultural output per head—could proceed only side by side with improvements in crop production. The figures given above on the pre-war position, and such inferences as they warrant, should be viewed against that overriding consideration.

A salient feature of the above table is the high proportion of horses and mules in the less advanced countries. It is due to a variety of reasons—the predominance of small holdings, inherited habits and poor roads; and it has a distinctly unfavourable economic effect, in that it places a drain on the fodder supply which otherwise might be used for the provision of milk and meat. The high proportion of sheep and goats in the Balkan countries is largely due to the poor quality of much of the pasture land, as we have already mentioned. At the same time, in many parts of the Balkans the excessive number of goats in particular has destroyed even such pasture land as was available. Any future development of livestock farming should, therefore, aim at increasing the stock of cattle and pigs.

The density of these two groups showed, in 1938, the following picture:

LIVESTOCK DENSITY (1938)

	CATTLE PER 100 HA. AGRI- CULTURAL AREA	CATTLE PER 100 TOTAL POPUL- ATION	PIGS PER 100 HA. ARABLE LAND	PIGS PER 100 TOTAL POPUL- ATION
Poland . . .	41.3	30.5	40.6	21.8
Austria . . .	59.6	38.4	145.7	42.5
Czechoslovakia . .	59.1	32.4	65.3	25.1
Hungary . . .	24.9	20.8	55.3	34.4
Roumania . . .	23.5	21.8	23.5	15.9
Yugoslavia . . .	29.8	27.4	46.0	21.9
Bulgaria . . .	41.0	29.3	22.1	14.1
Greece . . .	28.5	14.5	19.5	6.0
Germany . . .	69.8	30.1	122.5	35.5
France . . .	45.2	37.2	34.4	17.0
Denmark . . .	103.1	86.1	106.1	76.7

Compiled from Year Book of Agriculture, International  
Institute of Agriculture, Rome.

The figures suggest that even if one allowed for differences in national conditions there still was scope for an increase in the livestock of these countries, notably of Hungary, Roumania and Yugoslavia. It must be noted that the figures for these countries included a large number of oxen and buffaloes which served merely as draught animals.

The meat production and consumption of the area, together with production per head, can be seen from the following figures, which give a further indication of the need for an increase in livestock (cf. Table on p. 21):

## MEAT PRODUCTION AND CONSUMPTION

(Average 1935-1938)

	BEEF AND VEAL	PORK	MUTTON AND GOAT	TOTAL MEAT	MEAT EXPORTS OR IMPORTS (— AND +)	CON- SUMPT'N	OUTPUT PER HA. OF AGRI- CULT'RAL AREA	OUTPUT PER HEAD OF POP- ULATION
	In thousand tons						In kilograms	
Poland .	420	520	10	950	—50	900	37	28
Czechoslovakia	180	220	10	410	+20	430	49	27
Austria .	100	200	20	320	+30	350	73	47
Hungary .	80	240	10	330	—70	260	43	37
Roumania .	130	280	80	490	—40	450	30	25
Yugoslavia .	110	280	80	470	—60	410	33	30
Bulgaria .	40	65	60	165	—5	160	36	26
Greece .	30	35	60	125	+15	140	35	18

Based on statistical data in O. Mielck, *Die Ernährungswirtschaft Europas*, Berlin.

Another major line of improvement would be an increase in the output of animal products, i.e. milk and eggs. In most countries of the area the annual milk yield per cow is below 1,500 litres, as compared with 2,500 to 3,000 litres in Central Europe. Improvements could be brought about by better feeding and care of animals, as well as by improved breeds.

The same applies to poultry farming, an activity that should be especially suited for small holdings, but the average yearly production in Balkan countries was only 75-80 eggs per hen.

In connection with the future development of livestock, dairy and poultry farming two reservations must, however, be made. All the figures here given, it must be recalled, apply to the pre-war situation, as only scanty information is available

on changes which have taken place since the war. It is known, however, that while only moderate changes have taken place in the distribution of agricultural crops, the number of livestock has dropped considerably, and may decline still further. Some experts express the opinion that the replacement of wartime losses in livestock might take as long as eight years.<sup>1</sup> As, on the other hand, the restoration of agricultural production to its pre-war level may be achieved within a much shorter period, it will be essential to co-ordinate the two lines of development from the outset. Failing such action, the change to more intensive farming may easily be seriously delayed.

The second condition for a large-scale development of livestock and dairy farming would be an improvement in marketing arrangements. This problem will be examined at greater length in a subsequent chapter. In the meantime attention must be drawn to the fact that the marketing facilities, transport and storage required for the distribution of animal products—as well as of other perishable foodstuffs—are still largely lacking in the greater part of the area.

#### AN OUTLINE PROGRAMME FOR AGRICULTURE

It is fully realized that the data presented here touch only the fringe of a highly complex problem. Even in this cursory examination several major questions have been encountered—e.g. agricultural exports, land tenure, agricultural organization, etc.—which had to be left unanswered because they are bound up with broader issues. All that can therefore be attempted here is to sketch the outline of a minimum programme for agriculture as part of a wider plan of economic development.

There seems to be general agreement on the need to change over to more intensive farming. Practical action would therefore have to follow something like the following lines.

(a) The ordinary two- and three-crop rotation still predominant in the area should be replaced by an improved three-crop rotation in which fodder crops and root crops including vegetables would play an increasing part.

(b) This improved rotation with a growing proportion of fodder and root crops would allow a gradual increase in livestock. Although the ultimate aim would be an increase

<sup>1</sup> Dr. Hammond at Conference on Nutrition, November 6, 1943, quoted in *Nature*, 27th November, 1943.

in the cattle population (especially milk cows), at the beginning an increase in pigs and poultry might be given precedence because of the fodder situation. Surpluses of maize could be transformed immediately into pork and pig fat.

(c) The tempo of the whole process would be determined by the increase in the use of technical aids. Artificial fertilizers, especially in the case of root crops, would both increase and stabilize yields. In addition to the simple implements—ploughs and harrows—drills and seed-sorters would have to be provided in adequate numbers. The rational utilization of agricultural equipment would necessitate its joint use under some co-operative or similar organization.

(d) Lastly, the provision of heavy machinery, together with basic improvements—such as land reclamation, drainage, irrigation, animal breeding stations, research stations—would form part of a long-term investment programme. The capital to be allocated to these requirements would depend on the total supply of capital available for investment.

This programme, it should be stressed again, would have to be accompanied by action in a wider field, of which better education, the abolition of strip farming, improved living conditions on the land, etc., should form part. The very variety of actual local conditions in these respects precludes any ready-made solutions and calls for detailed study on the spot, before any definite line of action can be propounded.

Above all, it is important to stress that the problem of agriculture cannot be divorced from more general economic and social problems. That is a truism all too often forgotten, which comes out nowhere more clearly than in the interdependence of agriculture and industry.

(For further statistical data see Appendix).

*Sources* (in addition to those quoted in the text):

European Conference on Rural Life, 1939.

National Statistical Year Books of the countries covered.

U.S. Department of Agriculture, Agricultural Statistics 1939.

## CHAPTER III

# INDUSTRIAL DEVELOPMENT

### OUTLINE OF THE PROBLEM

The need for industrial development in the area considered here cannot be gainsaid. The question which this chapter sets out to examine is not whether industrialization is necessary. Our subject is rather how much and what kind of industrial development is practicable in these countries.

By way of introduction, let us pass briefly in review the basic factors or conditions which determine the scope for, and the direction of, industrial development. One has been mentioned already: the pressure of population. Figures on the existing surplus population in agriculture are at best in the nature of rough estimates; in any case, the available figures do not take into account the substantial changes which have taken place since the beginning of the war. However, to take only the lowest estimates made before the war, between 20 and 25 per cent of the area's total agricultural population—the number of people whose main source of income was agriculture—was apparently excessive. The percentage varied from country to country: it was put at 33 per cent for Yugoslavia and Bulgaria, about 25 per cent for Poland and Greece, about 20 per cent for Roumania, something like 15 per cent for Hungary and about 10 per cent in Czechoslovakia. A first approximation to the size of the problem can be obtained by comparing these estimates with existing employment in industry and the estimated annual intake into industry in the period 1935-37, a period of intensive industrial activity. (See table, p. 39.)

One indication given by these figures is the relation between the employable surplus population (column II) and existing employment in mining and in manufacturing industry (column III). Another instructive comparison is between the yearly intake before the war (column V) and the annual increase in employable population (column VI). These disparities give some idea of the increased pace at which industrialization would have to proceed if it is to bring about a better balance in occupational distribution. (As part of the 1935-7 intake, especially in the first four countries, was re-employment,



OVERPOPULATION AND INDUSTRIAL EMPLOYMENT  
(In round figures, 000's omitted)

	I	II	III	IV	V	VI
	Estimated Agricultural Over- population (in 1937) (incl. Depen- dents)	Same in terms of Active Population Employ- able in Industry and Services	Total Employed in Mining and Manu- facturing Industry (1937)	Estimated Industrial Unem- ployment (in 1937)	Estimated Yearly Intake into Mining and Manu- facturing Industry (Average 1935-37)	Yearly Increase in Employ- able Population (60% of net Increase in Popula- tion, Average 1930-37)
Austria .	Nil	Nil	720	940	60	—
Czecho- slovakia .	(800- 1,200)	(320- 480)	1,900	410	90	45
Hungary .	(800- 900)	(320- 360)	325	40	35	30
Poland .	5,000	2,000	830	320	75	215
Greece .	(900)	(360)	(280)	(25)	25	54
Yugoslavia .	3,750	1,500	(270)	20	30	135
Roumania .	(3,000)	(1,200)	315	10	30	140
Bulgaria .	1,200	480	100	(5)	10	45

Figures in brackets are rough estimates.

Compiled from National Statistics; estimates on agricultural overpopulation from private sources.

absorption capacity for new labour was even lower than the figures in column V indicate).

A second factor which has a bearing on future industrial development is the existing level of consumption for manufactured goods, and the trend of demand in so far as it can be anticipated. As in the case of nutrition, the prevailing low levels of consumption could hardly be improved unless the level of income itself can be raised. But assuming a gradually rising level of income—to which an accelerated industrial development itself would make an important contribution—the existing standards of consumption at varying levels of income may throw some light on the likely trend of consumer demand. Statistical information on this subject is, unfortunately, most inadequate. The following estimates of the pre-war consumption of certain manufactured articles per head of

population arranged in the order of the relative income levels in the countries of the area provide, however, a general picture of the scope of industrial development from the standpoint of demand.

ESTIMATED YEARLY CONSUMPTION OF SOME MANUFACTURED GOODS  
PER HEAD OF POPULATION  
(Year: 1937)

	YUGOSLAVIA	BULGARIA	ROUMANIA	GREECE	POLAND	HUNGARY	CZECHOSLOVAKIA	AUSTRIA	WESTERN EUROPE
Cotton Goods . (kilos)	2.0	2.8	2.2	2.9	2.3	2.4	4.2	5.1	8
Paper . (kilos)	3.5	N.A.	2.8	2.9	5.1	10.0	13.9	14.8	30
Soap (fat content) (kilos)	0.7	N.A.	0.7	2.0	1.5	N.A.	2.5	N.A.	6
Sugar . (kilos)	5.4	4.5	6.7	10.0	12.5	12.7	22.4	19.5	32
Wireless Sets . (No. of licences per 1,000 per- sons)	7	5	11	3	25	43	69	92	120

N.A.—Not available.

Another category of large-scale demand for manufactures would arise from development in other economic sectors, particularly in agriculture and transport. We may refer here to the figures given in the chapter on agriculture on the existing use of fertilizers and mechanical equipment and the increase that is required. If one adds the specific requirements that would be generated by industrialization itself—industrial buildings, part of the industrial equipment, housing for industrial workers are cases in point—a broad idea can be formed of the main lines of development from the standpoint of demand.

Lastly, the direction of industrial development will be influenced by the type of physical resources available, such as fuel or water power, minerals, timber, etc. As will be shown later in this chapter, a wide range of natural resources exists

in the countries of the region which offer considerable scope for development and provide some natural lines of industrialization.

### THE STRUCTURE OF EXISTING INDUSTRY

The figures given above have already indicated the unequal degree of industrial development in the different countries. This is brought out more clearly in the following table:

#### EMPLOYMENT IN SECONDARY INDUSTRY

	PERCENTAGE OF ACTIVE POPULATION EMPLOYED IN MINING AND INDUSTRY, INCLUD'G HANDICRAFTS	PERCENTAGE EMPLOYED IN HANDICRAFTS (estimated)
<b>GROUP I</b>		
National Income per head about \$150:		
Czechoslovakia . . . . .	38.2	N.A.
Austria . . . . .	34.4	N.A.
<b>GROUP II</b>		
National Income per head about \$100:		
Hungary . . . . .	23.9	9
Poland . . . . .	16.9	7
<b>GROUP III</b>		
National Income per head about \$60:		
Greece . . . . .	N.A.	N.A.
Yugoslavia . . . . .	10.7	6
Roumania . . . . .	10.0	6.5
Bulgaria . . . . .	8.5	5

As these figures show, not only does the proportion of industrial employment decline in proportion to the decrease in national income, but the relative proportion of handicrafts shows a parallel increase. In the lowest group, this category accounts for about two-thirds of the total number of persons gainfully employed in secondary industry.

The structure of manufacturing industry is displayed in the following tables:

**STRUCTURE OF MANUFACTURING INDUSTRY**  
(According to Employment)

	CZECHO-SLOVAKIA <sup>1</sup>	AUSTRIA <sup>1</sup>	HUNGARY	POLAND	ROUMANIA
	Percentages				
Iron and Steel and Engineering . .	24.4	25.6	34.1	34.2	18.3
Textiles and Clothing .	22.5	10.7	24.5	25.5	26.1
Leather and Shoes .	1.5	1.9	3.3	2.5	4.2
Food and Beverages .	14.4	15.3	11.5	9.0	12.3
Stone, Glass, Pottery .	7.8	6.1	9.7	9.4	8.1
Chemicals <sup>2</sup> . .	N.A.	N.A.	5.7	10.1	9.2
Woodworking . .	10.9	12.5	4.5	8.0	15.0
Paper . .	2.5	4.3	2.1	3.4	4.2
Miscellaneous . .	16.0	23.6	4.6	7.9	2.6

<sup>1</sup> Incomplete figures, partly estimated<sup>2</sup> Incl. oil refining

Source: National Statistics.

**STRUCTURE OF MANUFACTURING INDUSTRY**  
(According to Net Output)

	HUNGARY 1935	ROUMANIA 1935	BULGARIA 1937
	Percentage of total net output		
Iron and Steel .	11.2	} 20.8	10.0
Engineering . .	12.0		
Clay and Building Materials . .	5.2	6.3	12.0
Timber . .	2.4	4.5	1.4
Chemicals . .	10.0	20.4	9.5
Rubber . .	1.0	—	—
Leather . .	2.6	1.9	3.5
Textiles . .	20.0	} 14.7	40.0
Clothing . .	1.9		
Paper . .	5.9	6.3	3.6
Food . .	27.8	25.1	20.0
	100.0	100.0	100.0

Source: National Statistics.

Although these figures are incomplete and not strictly comparable (because of differences in classification), they show some interesting features. The increasing proportion of textiles in the industrially less advanced countries suggests that this

group is one of the first to develop, and also that an important factor favouring its growth is the abundance of manpower and the predominance of unskilled labour. That is also why the weaving section has invariably been the first to develop, followed later by the more capital-intensive spinning section.

In the food and beverages group it is notable that the largest percentage of employment is in the two most industrialized countries, namely Austria and Czechoslovakia. Although this cannot be attributed to any single cause, it does seem that the growth of this group is determined at least as much by the demand of the non-agricultural population as by the nearness of raw material supplies.

The food and beverages group embraces a wide variety of industries. Flour milling, sugar and alcohol refining, and brewing are well developed in all countries; they include highly mechanized large-scale units which were formerly engaged predominantly in exports. The tobacco industry, which also forms part of this group, was also well developed; in the case of Bulgaria and Greece it was a key export industry. Vegetable oil milling is another fairly widespread industry in the group. On the other hand, food-canning is a comparatively young branch, which before 1939 had achieved some importance only in Poland (meat-canning).

The group of metal-working industries which includes iron and steel, mechanical engineering and electrical apparatus is the leading group in the first four of the six countries considered. However, its importance does not vary with the degree of general industrialization. The development of the foundry industries is conditioned to a certain extent by the proximity of mineral resources and coal, but when we come later on to examine the mineral and fuel resources of the area it will be seen that this relationship is not very constant. Engineering, on the other hand, varied closely with general industrial development; the percentage figures given above do not reflect the wide differences in the degree of development of the engineering industries in the countries concerned, ranging from the manufacture of precision tools in Czechoslovakia to assembly plants and industries largely based on imported semi-manufactures in the Balkan countries.

The same holds true of the chemical industry, which shows a widely varying degree of development in the several countries.

While Czechoslovakia and, to a lesser extent, Austria and Hungary had a diversified chemical industry, in the Balkan countries and Poland this industry was largely confined to the production of mass consumption articles, such as soap, matches, etc.; and of some heavy chemicals, e.g. superphosphate, sulphuric acid, copper sulphate, caustic soda, etc. There existed, in addition, a few specialized industries in the chemical section, such as oil refining in Roumania and Poland, the manufacture of potash fertilizers in Poland, tanning extracts in Yugoslavia, and wood distilling in all timber-producing countries. The wood pulp, cellulose and paper industries were conditioned both by general industrial development and by the presence of suitable timber resources, about which some data will be given in another section.

#### CAPACITY AND ITS USE

Figures on the capacity of the individual groups of industries and of the degrees of its utilization are scanty. Such figures as are available apply to the pre-war situation and do not take into account the considerable changes that have since taken place through the expansion of heavy industry and, on the other hand, through excessive wear and tear, and, in some parts, through the scrapping of machinery in consumer goods industries (e.g. in Poland).

The pre-war output of pig iron and steel is given below. In most countries, output in the years stated was near capacity; an estimate of pre-war capacity is added, but must be regarded with reserve. The average increase in capacity since 1939 may be put at between 25 and 50 per cent; in the case of Austria and Czechoslovakia it may be even higher.

PIG IRON AND STEEL OUTPUT BEFORE THE WAR  
(In thousand tons)

	YEAR	PIG IRON	STEEL	ESTIMATED STEEL- PRODUCING CAPACITY
Poland . . .	1938	968	1,542	1,800
Czechoslovakia . .	1937	1,675	2,315	2,500
Austria . . .	1937	388	657	1,000
Hungary . . .	1939	409	733	800
Roumania . . .	1938	133	277	300
Yugoslavia . . .	1938	58	220	220

Source: Statistical Year Book, League of Nations.

For the textile industry complete figures are available on the pre-war equipment and estimated capacity of the cotton spinning and weaving sectors in all the countries concerned (the figures do not include hand looms and equipment in handicrafts).

## CAPACITY OF COTTON INDUSTRY

	YEAR	NUMBER OF SPINDLES IN THOUSANDS	ESTIMATED CAPACITY IN THOUSAND TONS	NUMBER OF LOOMS IN THOUSANDS	ESTIMATED CAPACITY IN THOUSAND TONS
Poland . . .	1939	1,925	75	46	45
Czechoslovakia . .	1937	2,650	100	75	75
Austria . . .	1936	350	14	15.7	15
Hungary . . .	1940	335	13	14	14
Roumania . . .	1940	250	10	16	15
Yugoslavia . . .	1939	184	7	13	13
Bulgaria . . .	1940	226	9	4	4
Greece . . .	1939	270	12	7.8	7
TOTAL . . .		6,190	240	191.5	188

Source: International Cotton Bulletin.

No detailed figures are available on output, but it is known that considerable idle capacity existed in Czechoslovakia, Austria and Poland. For Czechoslovakia, the idle capacity in the cotton-spinning industry was estimated as high as 60 per cent. It should be pointed out, however, that plant in Czechoslovakia and Austria was partly obsolete.

For the other groups data on capacity and utilization are even scantier. From such figures as are available, however, it appears that nearly all industries, and certainly all consumer goods industries, had a large unused capacity. This was true not only of typical export industries, like the sugar and brewery industry in Czechoslovakia, or flour milling in Hungary and Yugoslavia; in Yugoslavia the paper industry, with an annual capacity of some 40,000 tons, was normally utilized only to 50-60 per cent of capacity; the sugar industry, with a capacity of 140,000 tons, to less than 50 per cent; oil mills, with a

capacity of some 20,000 tons, to 40-50 per cent. Figures in Roumania were not much different. The average utilization of the sugar refinery capacity (230,000 tons) was 40 per cent and several other industries in the food group showed a similar degree of under-utilisation.

Taken in conjunction with the strikingly low figures of consumption quoted earlier for these very articles, the large idle capacity throughout industry—and particularly in the consumer goods industries—points to the existence of serious economic maladjustment. It would take us too far to try to examine here the reasons for this maladjustment; they are much too complex for a simple answer. Many of the answers put forward, such as the depressed state of agriculture, the industrial price structure, fiscal policy, prove on closer examination, to be symptoms of deeper causes. For our immediate purpose, however, two conclusions are warranted even without going further into the matter. First, it would be patently incorrect to think of future industrial development as merely a matter of constructing industrial productive capacity, without at the same time taking account of general economic maladjustment. Secondly, and conversely, if the general problem were successfully tackled, the existence of idle industrial capacity (in so far as it may still exist at the end of the war) would render the task of future industrialization considerably easier, and its cost in fixed capital lower, than would otherwise be the case. To quote but one instance, the *existing* engineering and textile industries (the first after the necessary re-conversion) could go far towards accelerating expansion in other branches.

### NATURAL RESOURCES FOR INDUSTRIAL DEVELOPMENT

The possibilities of industrial development and the direction in which it would be desirable that it should move, become clearer if one examines the natural resources available in the area and their present stage of industrial utilization. We give below summary figures on pre-war output<sup>1</sup> and estimated reserves (where available) together with some indication as to industrial utilization. The estimates for reserves should be treated with due caution.

<sup>1</sup> All output figures, unless otherwise stated, are based on the Statistical Year Book, League of Nations.



## FUEL AND POWER

The area as a whole is well endowed with coal, mineral oil and water power, although these are unevenly distributed as between the several countries. The figures for coal output and reserves are:

COAL OUTPUT AND RESERVES  
(In thousand tons)

	OUTPUT*		ESTIMATED RESERVES		
	Anthracite and Bituminous Coal	Lignite & Brown Coal converted into Coal Equivalent	Anthracite and Bituminous Coal	Lignite and Brown Coal	Total Reserves, Coal Equivalent
Poland . . .	31,503	—	60,000,000	—	60,000,000
Czechoslovakia .	13,326	9,650	28,000,000	12,000,000	35,000,000
Austria . . .	245	1,822	8,000	300,000	200,000
Hungary . . .	520	1,824	100,000	176,000	200,000
Roumania . . .	291	568	48,000	3,000,000	2,000,000
Yugoslavia . . .	423	1,403	45,000	4,680,000	2,000,000
Bulgaria . . .	105	542	140,000	3,860,000	1,600,000
Greece . . .	—	55	—	10,000	Negligible

\* Year: average 1935-37

## COAL

Big deposits of coal exist in south-western Poland and the adjacent districts of Czechoslovakia; the coal seams in Poland are exceptionally rich, the output per man and shift before the war being 2-3.5 tons. The mines in other parts of the region are only of local importance. Before the war metallurgic coke was produced only in Poland and Czechoslovakia; output in 1937 was 2.1 and 3.2 million tons respectively. Brown coal and lignite of varying qualities were mined extensively in many parts of the area, their main use being for generating electric power, but also directly for low-grade industrial fuel. Coal distilling was not developed before the war, but according to more recent reports a synthetic rubber plant has been set up in

Poland, and synthetic oil is being produced in Czechoslovakia. In Poland and Czechoslovakia, coal accounted for 85 per cent of total fuel consumption.

### MINERAL OIL

Figures for pre-war output were as follows:

#### OUTPUT OF MINERAL OIL (In thousand tons)

	OUTPUT OF CRUDE OIL	
	1935-37	1940 (Estimated)
Poland . . . . .	509	400
Czechoslovakia . . . . .	120	300
Austria . . . . .	15	500
Hungary . . . . .	—	500
Roumania . . . . .	8,080	5,200

No reliable estimates of oil reserves are available. The known reserves in Roumania were put before the war at 50 million tons, which was possibly an under-estimate. The pre-war consumption of the area was considerably below output. Refining capacity was far in excess of both output and current requirements, so that there does not seem to be much scope for development in the oil industry. It may be added that from the viewpoint of internal fuel economy oil played an important part only in Roumania, where it supplied 26.1 per cent of the total fuel consumption (average 1937-39); in Poland, its share was only 2.6 per cent and in other countries still lower.

### WATER POWER

The area possesses a large potential of hydraulic power, as may be seen from the figures on the following page.

Only in Austria was water power developed to any major extent; it supplied there 80 per cent of all electric power and more than half of the total fuel consumption. In the other countries the proportion was considerably below these figures.

Wood was used extensively as fuel, especially for domestic heating, but not infrequently also in small industries, in the

## HYDRAULIC POWER

(In thousands of h.p.)

	POTENTIAL HYDRAULIC POWER AT MINIMUM FLOW (estimated)	POTENTIAL HYDRAULIC POWER AT MEDIUM FLOW (estimated)	INSTALLED HYDRAULIC POWER (1935)
Poland . . .	1,400	2,800	90
Czechoslovakia . .	1,000	1,300	155
Austria . . .	1,660	6,000	900
Hungary . . .	200	300	25
Roumania . . .	1,600	6,000	110
Yugoslavia . . .	3,000	7,500	250
Bulgaria . . .	1,000	2,200	25
Greece . . .	300	700	—
TOTAL . . .	10,160	26,800	1,555

more backward areas. In Roumania 27.7 per cent of total fuel consumption was supplied by wood (average 1937-39); in Yugoslavia the proportion may have been even higher. (For output figures see below, under timber resources).

As the above figures show, the area possesses a potential of industrial power which could carry an extensive industrial development. The harnessing of water power in particular would open up great possibilities in more than one direction, and this is a typical field where regional arrangements, in so far as technically practicable, might secure the advantages of large-scale organisation. The cheap supply of electricity would facilitate the development of rural industries and the strengthening of handicrafts. It could serve as a foundation for a series of new industries in the electro-chemical and electro-metallurgical lines. Mining would be fostered by it in a direct way.

## MINERALS

The region is fairly poor in iron ore and most of the deposits are of low iron content. The pre-war figures of output and estimated reserves were as follows:

## OUTPUT AND RESERVES OF IRON ORE (In thousand tons)

	ORE OUTPUT (Average 1935-37)	IRON CONTENT	AVERAGE % OF IRON CONTENT	ESTIMATED RESERVES OF ORE
Poland . . .	526	166	31	160,000
Czechoslovakia . .	942	303	32	330,000
Austria . . .	1,226	434	35	240,000
Hungary . . .	254	86	34	—
Roumania . . .	110	49	44	26,000
Yugoslavia . . .	438	215	48	200,000
Bulgaria . . .	—	—	—	—
Greece . . .	242	103	43	100,000

Comparing the output figures with those on the output of pig iron given on page 44, we can see that the first five countries on the list had to import part of their iron ore requirements. Yugoslavia and Greece, whose iron ore is of higher grade but who had no hard coal at all, were exporters of iron ore. According to expert opinion, ore output in Yugoslavia could have easily been stepped up to one million tons yearly.

## NON-FERROUS METALS

As the following figures show, there is a wide range of non-ferrous metals in the area.

## OUTPUT OF NON-FERROUS METALS (In thousand tons)

	ZINC (Spelter)	LEAD	COPPER	MAN- GANESE	ANTI- MONY	MAG- NESITE (Raw)	CHROM- ITE <sup>1</sup>	BAUX- ITE (Raw)
Poland . . .	60	4.9	—	—	—	—	—	—
Czechosl. . .	1.7	3.9	—	—	1.6	4.6	—	—
Austria . . .	2.9	6.7	—	27.3	—	416	—	—
Hungary . . .	—	—	—	7.9	—	—	—	357
Roumania . . .	4.9	6.2	0.7	14.1	—	—	—	9.2
Yugoslavia . . .	54.2	67.0	39.3	—	1.4	—	24.1	286
Bulgaria . . .	—	—	—	—	—	—	—	—
Greece . . .	5.5	5.6	—	—	0.1	105	16.6	126

Average 1935-7, in metal content unless otherwise stated.

<sup>1</sup> Cr<sub>2</sub>O<sub>3</sub> content.

— = Nil or negligible.

Only incomplete figures are available as regards reserves, but important reserves are known to exist in spelter (Yugoslavia, Poland), lead (Austria, Yugoslavia), magnesite (Austria, Greece), chromite (Greece, Yugoslavia). A well-developed zinc smelting and rolling industry existed in Poland (with a capacity of 165,000 tons); copper smelting in Yugoslavia (pre-war capacity 40,000 tons); and a magnesite processing industry in Austria (estimated capacity 500,000 tons). The remaining minerals were mostly exported, after primary smelting, in the form of concentrates.

A more intensive development of the available mineral resources is dependent on better transport facilities and on the provision of cheap electric power, to which reference has already been made. Special mention may be made in this connection of the bauxite deposits of Hungary and Yugoslavia, estimated at 250 and 90 million tons respectively. Before the war the aluminium output of Yugoslavia was 1,300 tons, that of Hungary 1,200 tons.

#### TIMBER RESOURCES

The timber resources of the area provide another important source of potential industrial development. The forests contain trees of all non-tropical varieties; coniferous trees predominate in the northern and western areas, while deciduous trees are more common in the other places. Output figures in 1937 were as follows.

OUTPUT OF TIMBER (In thousand cubic metres)

	TOTAL WOOD PRODUCTION	TIMBER PRODUCTION	FIREWOOD PRODUCTION
Poland . . .	17,000	(10,000)	(7,000)
Czechoslovakia . .	18,216	11,587	6,629
Austria . . .	9,523	5,904	3,619
Hungary . . .	3,538	478	3,060
Roumania. . .	16,568	7,142	9,426
Yugoslavia . . .	16,000	(6,500)	(9,500)
Bulgaria . . .	2,472	659	1,813
Greece . . .	377	77	300
	83,694	42,347	41,347

( ) Estimated.

Source: Year Book of Forestry Statistics, Rome.

While in recent years cutting has been, if anything, excessive in relation to re-afforestation, industrial processing is still little developed. In Poland, Roumania and Yugoslavia, less than 10 per cent of the total output is put to industrial use.

Woodworking industries of the less mechanized type, such as the manufacture of floorings, furniture, etc., were fairly well developed throughout the region. The manufacture of plywood and veneer was well established in Poland and Czechoslovakia and was spreading to the other timber producing countries. Wood-pulping was well developed in Austria and Czechoslovakia; Poland, Roumania and Yugoslavia also had a sizable pulping industry. Its output was used predominantly for paper and cardboard manufacture. The manufacture of rayon and other synthetic fibres was started only in recent years. Before the war Austria had the largest production; since 1939 the industry has been considerably expanded in the whole area, particularly in Slovakia.

Wood processing for chemical uses was mainly limited to wood distillation, which was fairly well developed in all wood producing areas. On the other hand, the processing of wood-pulp into raw sugars, cattle fodder, etc., or the utilization of its by-product, lignin, for the manufacture of tars, lubricants, road-binders and fertilizers, had not passed the experimental stage. It appears, however, that under the stress of war considerable progress has been made on these lines.

## AGRICULTURAL PRODUCTS

In a predominantly agricultural area with a surplus agricultural population the industrial processing of agricultural products must remain one of the main lines, if not the chief line, of industrial development. Under modern conditions the dividing lines between agricultural production, marketing and processing are apt to become blurred. All that can be done within the framework of the present chapter is to point to some possible lines of industrialization at the final stage.

The traditional food industries, such as flour milling, breweries, sugar refining, and alcohol distilling, have been shown earlier to be, if anything, over-developed. In this sphere there seems to be room only for some secondary production, such as the manufacture of biscuits, cereal foods, etc.

On the other hand, the preservation of perishable foods, e.g. canning, deep-freezing, dehydration, drying of fruit, meat-curing, etc., offers promising scope for a development which in most countries of the area was only in its infancy in 1939. An interesting example of what is possible in this field is provided by the bacon and tinned ham industry of Poland. Built up during the thirties, this industry was able to develop to such an extent that in 1937 exports in these two products accounted for 8.2 per cent of total exports and formed the third item in the export list, immediately after coal and timber. Industrial crops in the area provide a further line of potential development. Before the war 3.3 per cent of the total arable acreage was cultivated with such crops, the most important of which are shown below.

OUTPUT OF MAIN INDUSTRIAL CROPS  
(In thousand tons: Average 1936-38)

	HEMP FIBRE	FLAX FIBRE	COTTON (Ginned)	TOBACCO	OIL SEED AND OIL BEARING PLANTS (Oil Content)
Poland . .	12.2	38.3	—	13.0	56.2
Czechoslovakia	5.4	10.3	—	14.6	13.8
Austria . .	0.1	0.8	—	—	—
Hungary . .	12.7	3.4	—	17.6	9.5
Roumania . .	28.8	8.9	—	12.6	105.3
Yugoslavia . .	52.3	8.7	—	17.4	20.2
Bulgaria . .	4.0	0.3	9.1	34.5	62.5
Greece . .	—	—	14.5	66.0	131.2

The proposed intensification of agricultural production, with an improved crop rotation and an increased use of fertilizers, might allow for an increased production of industrial plants suitable in local conditions of soil and climate. It may also be pointed out that the local industrial processing of industrial crops was, on the whole, in a backward state. The bulk of these crops was mostly either processed by primitive methods in the peasant homestead or exported in an unprocessed state.

A similar situation existed with regard to animal products, such as wool, hides and skins, in which there were large exports, while requirements in combed wool, leather and furs were mostly covered by imports. There are indications, however, that during the war home industrial production has been adapted to a large extent to the use of domestic raw materials.

Lastly, a comparatively new field of development with considerable possibilities is provided by the region's staple agricultural products (wheat, maize, potatoes) as raw materials for the chemical industry. A beginning had already been made with the manufacture of starch, dextrin, glucose and some industrial solvents. Production of these should be further developed, and new industrial uses found for agricultural products.

#### THE PROBLEM OF MANPOWER

The success of any programme of industrialization will depend to a considerable degree on the supply of technical skill. The problems involved should not be underestimated.

To begin with, a programme of large-scale industrial expansion would call for a proportionate number of personnel with high technical or managerial skill, such as production engineers, designers, managers, cost accountants, etc. The approximate ratio in which skilled labour of this type would be needed may be put at something like 1:25—1:50 (in relation to the numbers of unskilled workers). As the theoretical and practical training of such personnel might take, on the average, at least five years, in the initial stage the less developed countries would have to depend on imported skill. This might be supplied, to a certain extent, from the industrially more developed countries inside the area.

Skilled labour of the foreman and craftsman type would be required in much larger numbers. The proportion varies from industry to industry, and also according to the degree of mechanization. The figures for Roumania in comparison with figures for American and Australian industry in the table on p. 55 may be used as an illustration.

It may be pointed out that skilled labour of the foreman type was also in short supply in the industrially less developed parts of the region, even in relation to the demand at the time. The premium on skilled labour was reflected in the difference in



INDUSTRIAL DE  
SKILLED LABOUR AND M

	U.S. AND AUSTRALIA <sup>1</sup>		ROUMANIA <sup>2</sup>	
	H.P. Used per Occupied Person	Managers and Skilled Workers to One Unskilled and (or) Semi-skilled Worker	H.P. used per Occupied Person	Managers and Skilled Workers to One Unskilled and (or) Semi-skilled Worker
Foundry & Steel- making . . .	15 (U.S.)	0.51 (U.S.)	7.8	1.25
Flour-milling . . .	7.1 (Aus.)	0.91 (U.S.)	7.7	1.32
Textiles . . . (all combined)	3.6 (U.S.)	0.11 (U.S.)	0.9	0.42
Mechanical Engineering . . .	1.7 (Aus.)	1.28 (U.S.)	1.7	2.10(appr.)

Source: <sup>1</sup> A. J. Brown, Industrialization and Trade.

<sup>2</sup> National Statistics.

wage-rates: the wage-rate for unskilled workers was 40-50 per cent of that for skilled labour (western Europe and industrialised overseas countries 70-80 per cent). The training period for skilled labour may be put at 18-24 months. Consequently, in the case of any sudden industrial expansion a bottleneck may be expected in this respect in the industrially less advanced countries. Such shortages might be relieved by utilizing skilled labour from neighbouring countries.

A highly important factor for future industrial development is the quality of unskilled and semi-skilled labour. It would be idle to deny that the average efficiency of industrial labour was considerably lower in the Balkan countries than in Central Europe. But the fact that the more advanced countries in the area have developed their industries after emerging from largely similar economic and social conditions shows clearly that the difference in productivity is not due to any lack of natural aptitude, but mainly to lack of education and similar social handicaps. Therefore, not only vocational training for the higher grades of technical skill, but even general education would have to form an essential part of any programme of large-scale industrialization. Similarly, improved conditions of industrial welfare, labour legislation and social services will have to be thought of not merely as required by humani-

tarian considerations, but as essential conditions for raising the efficiency of labour.

A complementary line of attack would be the adaptation, in some part at least, of future industrial development to the man-power situation in the area. To a certain degree this is indeed inevitable; in view of the abundance of unskilled labour and the scarcity of capital, greater weight is bound to be given to industries employing more labour per unit of capital and more unskilled labour in relation to skilled. Generalizations would be dangerous because the two factors frequently operate in opposite directions, mechanization and a greater proportion of unskilled labour being, for instance, largely complementary. Some examples of industries favoured by both the labour and the capital conditions of the area are textiles, leather, boots and shoes, glassware and pottery, food-canning and certain light chemical industries. Beyond that, a decentralization of the light industries, helped by electrification, would facilitate the location of part of the newly developed industries in rural areas and in over-populated districts. Here again one should beware of hasty generalizations, but the idea seems well worth further investigation.

In particular the place of rural handicrafts in the future industrial structure of the less developed countries is a problem deserving detailed study. Measured by output per head, handicrafts are assuredly not a line that suggests itself for future development—even though some handicraft industries, such as engineering repairs, are bound to expand with further industrialization and the mechanization of agriculture. But the question has another side to it. Rural handicrafts and cottage industries fulfil essential functions as suppliers of goods in areas with poor communications; they generally use little capital and often provide an important secondary source of income for agricultural smallholders.

Even assuming that the industrial and general development of the countries in question could be on a sufficiently large scale to remove eventually all the adverse conditions mentioned before, the process must necessarily be a lengthy one. Meanwhile, the fact must be faced that in the four Balkan countries alone at least 750,000 families derive their livelihood from handicrafts. That fact has a twofold bearing on the general question of labour for industry. In the first place, as long as no

alternative employment can be provided for the manpower engaged in these occupations, every attempt should be made to increase its productivity by improving labour conditions, organising raw material supplies and credit facilities, improving marketing arrangements, etc. Secondly, this large reservoir of traditional skill, combined with some equipment, however rudimentary, might make a sizable contribution to the various needs of industrialization, partly through sub-contracting arrangements for simple engineering jobs, partly by supplying consumer goods that will be in greater demand as a result of increasing employment in road-building and kindred public works carried out with rural labour. Some co-operative method of organization for rural handicrafts on the lines adopted by other peasant countries might go a long way in both directions.

### REQUIREMENTS IN CAPITAL AND EQUIPMENT

Industrial development calls for the investment of fixed capital in the form of factory buildings, machinery and power installations, as well as for working capital in the form of fuel, raw material and stocks. Capital requirements per head of worker will vary from industry to industry both as to total and as to composition; they will also vary according to the degree of mechanization involved. To give an illustration, typical light, medium and heavy industries with a medium degree of mechanization in each group may require something like the following fixed capital per head of personnel (at pre-war prices).

### INVESTMENT AND POWER REQUIREMENTS

(Per Head of Personnel)

	LAND AND BUILDINGS	PLANT AND EQUIPMENT	TOTAL FIXED CAPITAL	H.P. INSTALLED
	\$	\$	\$	
Cotton Weaving .	300	600	900	1.5
Metal Working .	400	750	1,150	2.5
Chemical Fertilizers .	800	3,500	4,300	5.0

Two separate problems are involved here. The extent of industrial development as a whole would be determined by the total supply of capital from all sources, internal and external, which can be made available for it. The examination of this problem, which depends on the volume of internal saving, foreign borrowing and the distribution of investment as between different economic sectors, is left more conveniently to the concluding chapter, where it will be considered in its broader setting. Meanwhile it could be taken as a yardstick that on the basis of the figures given above the employment of every 100,000 workers would call for an investment of between \$150 and \$200 million in fixed capital only. To this must be added requirements in public utilities connected with industrialization, and, of course, working capital for the manufacturing process.

For our immediate purposes it is equally important to consider the types of capital required for industrial development. The provision of land, and of materials and labour for buildings, could be met within reasonable limits out of domestic resources. Part of the equipment and raw materials, however, must be covered by imports. Before the war, the Balkan countries imported, roughly speaking, two-thirds of their requirements in industrial equipment and one-third of their needs in raw materials and semi-manufactures. In the more industrialized part of the area the ratio may be put at one-third and one-quarter respectively. (Here again, of course, the proportion in individual groups of industries showed wide variations.)

It would go beyond the scope of this general survey to enter into any detailed examination of these specific requirements, but their general implication for future industrial development should be made clear. If, for instance, Yugoslavia were to absorb yearly 25,000 workers more than before on an industrial development programme spread over a wide range of industries, she would be faced with an additional import demand of the order of \$20 million for machinery and \$5 million for raw materials yearly. Now, the sum of \$25 million represents on the pre-war basis about 30 per cent of Yugoslavia's average yearly exports and 25 per cent of her total foreign receipts. Moreover, the demand for this additional import would coincide with an increased home demand for consumer goods, especially foodstuffs, as a result of increased employment.

That example illustrates the close interconnection between the direction of industrial development and external exchange relations about which too little is known at present to formulate any definite views. With little or no foreign lending, countries with a low productive capacity could step up industrialization only by forcing exports at the expense of the standard of living. They would also, inevitably, concentrate first on the production of capital goods which would similarly depress their standard of living and result, in addition, in the growth of some highly artificial industries. That was, in fact, largely the type of industrial development practised in the area in the 'thirties.

Another element which is largely unknown at the present moment, but which is bound to have a close bearing on the direction of future industrial development, is the question of markets, both external and internal, for industrial products. External outlets will depend on the international policies adopted after the war. As for the widening of the internal market, this will depend on a variety of factors, including price, fiscal and social policies. There is one aspect which must be kept in mind above all. In discussing agricultural reorganization we have seen that it could not be achieved without a substantial measure of industrialization. What has been said above on the problem of industrial development will have shown that its prospects depend to an equal degree on the raising of the level of agriculture.

(For further statistical data see Appendix).

*Sources* (in addition to those quoted in the text):

National Statistics.

Censuses of Production.

German Statistical Year Book, International Section.

G. Evelpidi, *Les Etats Balkaniques*.

Friedensburg, *Die Bergwirtschaft der Erde*.

Madgearu, *The Development of Roumanian Economy* (in Roumanian).

## CHAPTER IV

### TRANSPORT

The reorganization of industry and agriculture discussed in previous chapters would call for parallel improvements in transport. Broadly speaking, these improvements fall under four main headings: expansion of transport capacity; the provision of certain specific means of transport (e.g. for perishable foodstuffs); the provision of new lines of communication for new currents of traffic; and the opening-up of the more isolated areas. Any detailed examination of the problem would have to deal with every one of these aspects. Within the framework of the present study we can attempt only a general examination of the existing transport system and of the lines on which it could be developed best. For the sake of simplicity we have, moreover, to confine our examination to the traffic in goods.

#### EXISTING CONDITIONS OF TRANSPORT

The area considered covers the pre-war territories of Poland, Czechoslovakia, Austria, Hungary, Roumania, Yugoslavia, Bulgaria and Greece. The relevant figures for 1937 were as follows.

AREA AND POPULATION IN 1937

	AREA sq. km. (in thousands)	POPULA- TION (in millions)	DENSITY OF POPULATION		
			Per sq. km.	Per 100 ha. of Arable Land	Per 100 ha. of Agri- cultural Land
Poland . . .	389	35.1	90.2	185	134
Czechoslovakia .	140	15.2	108.6	256	179
Austria . . .	84	6.7	79.8	339	153
Hungary . . .	93	9.1	97.8	161	119
Roumania . . .	295	19.8	67.1	147	106
Yugoslavia . .	248	15.5	62.5	204	107
Bulgaria . . .	103	6.3	61.1	154	138
Greece . . .	130	7.1	54.6	323	195
	1,482	114.8	77.7	195	132

Transport conditions in different parts of the region varied widely. Geographical conditions favoured different forms of transport in particular areas. In Greece the length of the coastline and the configuration of the land gave sea transport a predominant role. Through the sea outlets of Poland, Roumania, Yugoslavia and Bulgaria passed a considerable part of their external trade, but little local traffic. The Danubian countries are provided with a natural inland waterway for long-distance traffic. But except in Greece the bulk of the traffic was land-borne. A broad picture of the relative importance of traffic by sea, inland waterways and railways—subject to qualifications to be made later in this chapter—is given below.

## DISTRIBUTION OF GOODS TRAFFIC

	AVERAGE 1927-37 (in million tons)		
	Sea	Inland Waterways <sup>1</sup>	Railway
Poland . . . . .	16.0	0.7	58.0
Czechoslovakia . . . . .	—	3.0	69.0
Austria . . . . .	—	0.8	28.0
Hungary . . . . .	—	2.0	19.0
Roumania . . . . .	7.0	3.0	26.0
Yugoslavia . . . . .	2.0	2.5	17.0
Bulgaria . . . . .	0.5	0.2	5.0
Greece } Open sea . . . . .	6.4	—	1.6
} Coastwise . . . . .	19.0	—	—
	50.9	12.2	223.6

<sup>1</sup> Estimated, excluding transit traffic.

History also has left its mark on the communications system. General development has been held up by a long succession of wars which affected various parts of the region. In addition, many a highway or railway line was built for strategic or political ends, rather than for the economic needs of the populations concerned. Often they were so laid out that outlying areas were linked to political centres, but not with one another. The salient features of the communications system to this day are that most secondary lines converge on a few centres along

the main arteries, which run west to east and south-east. Those of Czechoslovakia formed an exception, because as a result of their lay-out in the former Hapsburg Empire the principal lines of communication run from north to south. Until quite recently the only other routes relatively well developed were those between the main seaports and their immediate hinterland. Within that broad pattern the state of the transport system was conditioned by the general economic development of the several countries and, in particular, by the degree of industrialization they had reached. The interrelation is clearly borne out by the figures on railway and road density given below.

As to the main currents of traffic, they were broadly as follows. The predominance of small and scattered production units in agriculture caused local traffic between villages and the nearest market towns to be divided into a great number of very small local currents. A second stronger stream flowed from the market towns to the main assembly and distribution centres. It was subjected to wide seasonal and also to yearly fluctuations, according to the size of harvests. Communications between sources of raw material supplies and industrial centres on the one hand, and between industrial and distribution centres on the other, varied according to local conditions. As in most countries of the region, industry was concentrated in a substantial measure around the capital, this situation contributed to the convergence of the goods traffic upon those points. Another important flow of traffic was that between surplus and deficiency areas in primary commodities, such as cereals, fuel, timber, etc. Lastly, external trade involved an outward movement of considerable quantities of bulky commodities (coal, timber, oil, cereals, minerals, etc.) and a much smaller inward movement of raw materials, semi-manufactured and manufactured goods. Except where it had easy access to the sea, the flow of external traffic was greatly under the influence of the routes of communication built by foreign countries as part of wider transport and economic plans of their own. To quote but one example from recent experience, the economic preponderance obtained by Germany in South-Eastern Europe, especially after the annexation of Austria in 1938, was due in no small measure to the peculiar lay-out of the communications system referred to above.



## MEANS OF TRANSPORT: CAPACITY, OUTPUT, DEFICIENCIES

## SEA TRANSPORT

Because of its inherent cheapness and the higher degree of economic independence it secures, sea transport has an importance for the countries of the region which is out of proportion to the figures of actual traffic. That aspect involves political issues which lie outside our scope; but attention must be drawn to the wider implications of sea outlets, and to their close connection with the problems which come within our immediate purpose.

The part played by sea transport in the goods traffic of some of the countries is shown by the following figures.

SEA TRANSPORT  
(In thousand tons)

	Total Sea- borne Traffic	Internal Trade (Coast- wise Traffic)	External and Transit Trade	Seaborne Exports as % of all Exports	Seaborne Imports as % of all Imports	Length of Coast- line
						km.
Poland. .	16,300	—	16,300	78	60	140
Roumania .	6,500	—	6,500	60	30	446
Yugoslavia .	2,200	200	2,000	46	30	1,562
Bulgaria .	530	100	430	45	33	311
Greece .	25,100	18,700	6,400	92	89	3,980

Sea traffic was gradually gaining in importance before the war. The most striking case was that of Poland, where the proportion of sea-borne trade to total foreign trade increased about tenfold between 1922 and 1938. Part of the external trade of Czechoslovakia, Austria and Hungary, which had no direct sea outlets, was also carried by sea through foreign ports, especially Hamburg, the Baltic ports and Trieste. The total sea-borne trade of these three countries may be estimated at a minimum of 10 million tons; about two-thirds of this was handled by ports outside the region.

The case of Greece is a special one, for the geographical reasons stated before. For the other countries sea transport was confined largely to external trade, but in that sphere it played

an important part, especially for staple exports of a bulky nature (coal, oil, timber, grains, etc.). On the import side, the main goods entering into sea traffic were ores, scrap iron and metals, textile raw materials and overseas produce.

The distribution of sea traffic among the main ports of the region was as follows.

## TRAFFIC IN THE MAIN PORTS

YEAR: 1937

(In thousand tons)

		CALLS	CARGO	
		Registered Tonnage per year (mean between Arrivals and Departures)	Goods handled <sup>1</sup>	
			Inward	Outward
POLAND:	Gdynia .	6,500	1,500	7,700
	Danzig .	4,800	1,500	5,600
ROUMANIA:	Constanza .	4,400	140	5,200
	Galatz .	705	105	400
YUGOSLAVIA:	Dubrovnik .	3,050	110	265
	Split .	4,100	110	550
	Susak .	1,442	165	494
BULGARIA:	Bourgas .	849	112	170
	Varna .	756	79	156
GREECE <sup>1</sup> :	Pyraeus .	3,600	} 4,100	2,300
	Salonika }	1,600		
	Patras }			

<sup>1</sup> Excluding coastwise traffic.

Source: German Statistical Year Book, 1938.

The handling capacity at the main sea ports was generally adequate for the existing volume of traffic. The main deficiency of sea transport was the lack of facilities for the transport of perishable goods. Certain markets—like the Middle East for Danubian fruit, meat and dairy products—could not be reached at all for that reason, while markets on the western

seaboard of Europe had to be reached through the trans-continental railway system, at a cost considerably higher than the sea freight.

The following figures on pre-war freight rates may help to illustrate the cheaper cost of sea transport.

	SHILLINGS PER TON Converted at 1938 Rates of Exchange
<b>CEREALS</b>	
Braila to Rotterdam (by sea, about 6,300 km.) .	12/8*
Braila to Regensburg (by the Danube, 2,200 km.)	21/6
Novisad to Rotterdam (via Danube and Black Sea, about 7,500 km.) .	22/-
Novisad to Swiss frontier (by rail 850 km.) .	24/-
<b>PROCESSED FRUIT (Strawberry pulp)</b>	
Bulgarian Black Sea port to London by sea .	28/-
Bulgarian frontier to London, by rail .	100/-

\* Average, 1938-33

## INLAND WATERWAYS

### GOODS TRAFFIC ON INLAND WATERWAYS

	LENGTH OF NAVIGABLE RIVERS <sup>1</sup>	ESTIMATED FREIGHT CARRIED	FREIGHT PER KM. OF NAVIGABLE WATERWAY <sup>1</sup>
	km.	million tons	thousand tons
Poland . . .	765	0.7	0.9
Czechoslovakia . .	380	3.0	7.8
Austria . . .	349	1.0	2.9
Hungary . . .	600	2.0	3.3
Roumania . . .	1,700	3.0	1.8
Yugoslavia . . .	1,300	2.5	1.9
Bulgaria . . .	397	0.2	0.5
Greece . . .	—	—	—

<sup>1</sup> Navigable for vessels over 400 tons.

Inland waterways played a comparatively small part in the region's traffic; for the region as a whole, the proportion was less than 4 per cent of the total traffic. They had, however, a certain significance in the external trade of some Danubian countries (for detailed figures see Appendix). Inland water transport was confined largely to naturally navigable rivers,

with only some sectional regulation and short connecting canals. As the character of the traffic varied widely from river to river, it must be considered separately for the main river systems.

A. DANUBE. Although the Danube, with a navigable length of 2,390 km., is by far the longest navigable waterway in Central Europe, traffic on the river was relatively small. The peace-time traffic of 5-7 million tons yearly compared with a traffic of 70 million tons on the Rhine system. In 1936, a peak year in the inter-war period, traffic on the Danube showed the following picture.

DANUBE TRAFFIC  
(In thousand tons)

FROM	TO GERMANY	TO AUSTRIA	TO CZECHOSLOVAKIA	TO HUNGARY	TO YUGOSLAVIA	TO BULGARIA	TO ROUMANIA	TOTAL
Germany.	40	140	10	180	60	20	40	490
Austria .	40	180	3	130	20	6	20	399
Czechoslovakia.	10	20	50	30	110	40	30	290
Hungary .	140	200	60	1,200	25	10	150	1,785
Yugoslavia .	220	140	190	90	1,300	2	—	1,942
Bulgaria .	15	10	15	5	3	5	3	56
Roumania .	220	390	440	300	200	80	1,000	2,630
Total	685	1,080	768	1,935	1,718	163	1,243	7,592

TOTAL TRAFFIC  
(In thousand tons)

Internal traffic . . . . . 3,775—average haul 350 km.  
 External traffic downstream . 1,029—average haul 808 km.  
 External traffic upstream . . 2,788—average haul 1,109 km.

By the courtesy of Dr. O. Popper.

The main goods carried on the Danube were oil, cereals, ores, coal and timber. The Danube barge fleet (details of which are given in the Appendix) was never used to more than 40 per cent of capacity; in downstream traffic its utilization was considerably below that figure. One of the inherent dis-

advantages of Danube transport is that the river flows counter to the current of trade. The more difficult and more expensive upstream traffic exceeded downstream transport in the proportion of 3:1 to 4:1. Contrary to widespread belief, the Iron Gates narrows did not form a serious bottleneck in the flow of traffic: the existing installations could handle a traffic of at least 5 million tons per year, while the pre-war peak figure of traffic passing through the Iron Gates canal was about half that quantity. Handling capacity at the main ports was likewise adequate; though in some of the smaller ports, especially on the Lower Danube, both handling capacity and other installations were deficient.

There was additional traffic on the Maritime Danube—a stretch of 180 km.—which showed the following distribution:

Downstream	.	2,285,000 tons
Upstream	.	300,000 „
		<hr/>
		2,585,000 tons

This traffic was carried almost wholly on sea-going vessels and for practical purposes formed part of sea transport. Hence its main trend was contrary to the general flow of Danube traffic; downstream traffic preponderated as part of the seaborne outward traffic.

B. ELBE. The Elbe, and its tributary the Vltava, were used fairly extensively by Czechoslovakia. The distribution of the traffic is given below.

	Average Freight tons	Maximum Freight tons
Internal traffic . . . .	680,000	870,000
Exports . . . . .	980,000	1,496,000
Imports . . . . .	780,000	845,000

External traffic was mainly to and from Hamburg; the whole traffic was of an industrial type (ores, metals, raw materials for import, coal and general merchandise for export.)

C. VISTULA. No separate figures are available for traffic on the Vistula. Poland's total river traffic was, however, only about 800,000 tons yearly and the greater part of this was carried on the Vistula. (Of the 765 km. of navigable waterways in Poland, 425 km. were on the Vistula, 134 km. on the Warta; in addition, there were 154 km. of canalized rivers).

Lack of regularization on the Polish waterways caused considerable difficulties for Polish goods traffic, which is predominantly of the bulky type (coal, timber, etc.), and has to be carried over long distances.

## RAILWAY TRANSPORT

### RAILWAY TRANSPORT AND ITS RELATIVE IMPORTANCE

	WEIGHT CARRIED ON RAILWAYS IN 1937 <sup>1</sup>	As PERCENTAGE OF TOTAL TRAFFIC <sup>2</sup>	PERCENTAGE OF EXTERNAL TRADE CARRIED BY RAIL
	(Million tons)		(Estimated)
Poland . . .	58	77	21
Czechoslovakia . . .	69	93	92
Austria . . .	28	93	90
Hungary . . .	19	82	77
Roumania . . .	26	72	18
Yugoslavia . . .	17	76	42
Bulgaria . . .	5	82	22
Greece . . .	2	7	10

<sup>1</sup> Incl. transit traffic. <sup>2</sup> Excluding road transport, on which no figures are available.

Except in Greece, the railways formed the backbone of the transport system of every country in the region and carried the bulk of the internal traffic. For external traffic their importance varied in the different countries; on the whole they carried a greater proportion of imports than of exports.

The density of the railway network is shown below.

### RAILWAY NETWORK

	LENGTH OF NETWORK	DOUBLE TRACK	DENSITY PER 100 sq. km.	DENSITY PER 10,000 INHABITANTS
	km.	km.	km.	km.
Poland . . .	20,400	5,500	5.2	7.9
Czechosl. . .	15,500	1,770	9.8	10.1
Austria . . .	8,200	1,446	9.8	13.0
Hungary . . .	8,700	1,100	9.2	11.9
Roumania . . .	11,900	320	4.1	6.6
Yugoslavia . . .	10,200	599	4.1	7.3
Bulgaria . . .	3,300	—	2.9	5.0
Greece . . .	2,700 <sup>1</sup>	—	2.1	3.8

<sup>1</sup> Including 1,400 km. narrow-gauge railway.

The figures of density, which show a marked decrease from west to east, compare with a density in Western Europe of about 12 km. per 100 square km. and 15 km. per 10,000 inhabitants.

The first impression of low density is, however, modified by two considerations. One is the question of physical configuration: large areas in the Balkan countries—Greece and Yugoslavia in particular—and also in Austria, are covered by mountains. In such areas neither geographical features nor population density favour the building of railways.

The second consideration is the general level of economic development, against which railway mileage must be viewed. The most reliable yardstick is the national income; and while the figures available for the region are far from exact, they may suffice for a rough comparison. The mileage corresponding to every million dollars of national income varied from 13 km. in Yugoslavia to 6.5 km. in Czechoslovakia, whereas in western Europe the same figure is below 5 km. and in some cases even below 3 km. If weighted for population density, the disproportion becomes even wider. It would seem, therefore, that in relation to general development the railway network as a whole was not under-developed.

The degree of utilisation of the railways is shown by the following figures.

## RAILWAY GOODS TRAFFIC

(Year: 1937)

	(1) FREIGHT CONVEYED	(2) TRAFFIC OUTPUT	(3) AVERAGE LENGTH OF HAUL	(4) TON-KM. PER KM. OF ROUTE	(5) FREIGHT CARRIED IN 1929
	(Million tons)	(In ton-km.)	km.	(In thousands)	(Million tons)
Poland . . . .	57.9	17,905	305	885	74
Czechoslovakia . . . .	68.5	8,563	125	552	83
Austria . . . .	27.7	4,151	150	703	36.7
Hungary . . . .	19.3	2,574	133	296	28.8
Roumania . . . .	25.7	5,499	215	462	23.0
Yugoslavia . . . .	16.8	3,270	194	320	20.6
Bulgaria . . . .	5.0	907	181	294	N.A.

The average length of haul compares with 205 km. in France and 170 km. in Germany. The figures in column 4 (freight-km. per 1 km. of line) compare with 810 for France, 930 for Great Britain, 1390 for the U.S. and 1460 for Germany (thousands omitted). The high figures for Poland are explained by the fact that about 60 per cent of the commercial load carried by her railways consisted of coal, timber and stone transported over long distances, the sources of production being situated on the periphery. On some lines, especially those carrying coal, the density of traffic amounted to 5-10 million ton-km. per km. of route.

The figures in the above table do not reveal the main deficiencies of the railway system. One was the uneven distribution of the network and the complete lack of railway communications over vast areas. In Poland, for instance, the average density was 5.2 km. per 100 sq. km., but within this average there were variations from 13.5 km. in Silesia, to 2.7 km. in the eastern territories. Moreover, the layout of the network which in its actual planning was not properly fitted to local exigencies, became wholly unsuited to the new currents of trade which came into being after 1919. In the new Czechoslovak Republic the flow of traffic swung a full 90 degrees from north-south to west-east. In Roumania the territorial changes brought together four different communication systems, three of which had been based on centres outside the Old Kingdom. The result was that some railway lines were over-burdened, while others remained practically unused. Furthermore, the lack of 'feeder' roads prevented the adequate use of branch lines, many of which had to be closed down altogether.

Yet another source of difficulty was the inadequacy and poor condition of railway equipment. Insufficient marshalling yards, sidings and signalling apparatus, shortage of warehouse space and of handling equipment at stations, caused frequent bottlenecks in traffic, even at the existing low levels of traffic density. Lack of special rolling stock was another deficiency; the Balkan countries had no container service and only a few refrigerator cars. Figures on pre-war rolling stock are given in the Appendix.

## ROAD TRANSPORT

Unfortunately, no figures are available for road traffic. It consisted mainly of short-distance transport, most of it horse-



drawn. The importance of road transport for the region is obvious enough from the fact that about 60 per cent of its population is agricultural and lives in scattered rural communities. On the basis of pre-war output figures, it may be estimated that between 50 and 60 million tons of agricultural produce alone had to be carried by road.

The length and density of the road network is shown in the following table.

LENGTH AND DENSITY OF ROADS

	TOTAL LENGTH	LENGTH SURFACED	DENSITY PER 100 sq. km.	DENSITY PER 10,000 INHABI- TANTS	LENGTH OF ROAD CLASSIFIED AS GOOD
	km.	km.			km.
Poland . . . . .	85,470	60,788	21.9	25	N.A.
Czechoslovakia . . . . .	69,800	N.A.	49.8	46	N.A.
Austria . . . . .	27,119	N.A.	32.2	41	N.A.
Hungary . . . . .	29,200	21,900	31.4	33	N.A.
Roumania . . . . .	108,316	42,354	36.7	55	10,800
Yugoslavia . . . . .	41,063	N.A.	16.7	28	20,000
Bulgaria . . . . .	24,695	18,489	23.9	39	8,600
Greece . . . . .	13,900	N.A.	10.7	19.8	N.A.

The low density of the road network is seen from the corresponding figures for western Europe—e.g. France 114 km. per 100 sq. km., 150 km. per 10,000 inhabitants; Denmark 127 km. per 100 sq. km., 146 km. per 10,000 inhabitants. Even allowing for differences in physical conditions, and in the general level of development, the disparity is striking.

The density of the road network was low not only when compared with that of western Europe, but also in relation to other branches of transport inside the region. A typical aspect is the relation between road and railway mileage; the ratio between the two varied in the region from 5:1 down to 3:1, whereas in France it was 15:1 and in Denmark 21:1. There was also a lack of balance between main roads and secondary roads, the density of the latter being disproportionately low. Although the diversity of statistical classification makes any exact comparison impossible, even as between the countries of the region, the proportion of secondary roads (communal

roads, connecting roads, etc.) to highways was, broadly speaking, between 50 and 85 to 100; the corresponding proportion for Denmark was 550 to 100.

Another serious defect of the system was the poor quality of the roads. Except for the western part of the region and some of the main highways elsewhere, the greater part of the roads was unusable during the autumn and winter months, and hardly fitted for motor traffic at any time of the year. Some figures for roads classified in the respective statistics as "good" are given in column 5 of the above table; drivers using some of these roads would hardly have agreed with that classification. The bad condition of the roads was due to a variety of circumstances. Extreme weather fluctuations make special demands on the resistance of surfaces; that and hard usage by the iron-rimmed peasant carts, was responsible for excessive wear and tear and for heavy costs of maintenance which the overburdened exchequers of the states in question could ill afford. Most rural roads had no surfacing at all; they were simply earth-roads or tracks.

Except in the industrialized areas, motor traffic was still in its infancy. This may be seen from the following figures on mechanical vehicles in use:

MECHANICAL EQUIPMENT FOR ROAD TRANSPORT

	LORRIES	LORRIES PER 1,000 INHABI- TANTS	CARS	TOTAL MECHAN- ICAL VEHICLES	INHABI- TANTS TO 1 MOTOR VEHICLE
Poland . . . .	6,843	1.9	26,248	33,091	1,034
Czechoslovakia . . . .	23,606	15.5	81,921	105,527	144
Austria . . . .	19,200	29.1	33,000	52,200	147
Hungary . . . .	3,486	3.8	17,047	20,533	438
Roumania . . . .	4,070	2.1	21,000	25,070	777
Yugoslavia . . . .	3,798	2.4	10,986	14,784	1,034
Bulgaria . . . .	1,129	1.8	2,982	4,111	1,484
Greece . . . .	5,225	7.4	8,775	14,000	496

By way of comparison, the number of lorries per 1000 inhabitants was 103 in the United Kingdom, 177 in France, and 326 in the United States; the number of inhabitants per motor vehicle was 91 in the United Kingdom and France,

4 in the United States. It is noteworthy, however, that road transport was increasing rapidly in recent years; this may be seen from the following figures on the number of new licences issued for lorries and motor coaches.

POLAND	CZECHO-SLOVAKIA	ROUMANIA	YUGO-SLAVIA	BULGARIA
1935 1,040	1935 800	1933 400	1933 100	1934 43
1937 2,600	1937 2,000	1937 1,150	1937 800	1937 1,000

The figures given above show by implication the tremendous scope for an increase in motor traffic; but that depends above all on the provision of more and especially of better roads.

The bulk of road transport was by horse and ox-drawn carts. The importance of that means of transport in the given economic and social setting should not be under-estimated. The dispersed and roadless small holdings, the varied service given by horses, frequently the use of carting itself as a source of secondary income by under-employed peasants, justified its use even on purely economic grounds. Some idea of the wide utilization of horse-drawn transport may be obtained from the fact that in Yugoslavia the number of peasant carts was 925,000, i.e. one cart to seventeen inhabitants; in Roumania 1,620,000, or one cart to twelve inhabitants. These facts show that while horse traffic should perhaps not be encouraged, neither should it be ignored as a factor in road transport. The policy of building special motor highways which was favoured in some countries of the region (and which, incidentally, German propaganda has been pressing on south-eastern Europe for reasons of its own), would hardly be justified by these traffic conditions; and that quite apart from considerations of cost.

## AVIATION

Civil aviation was confined largely to passenger and mail transport. Commercial freight transport by air was in an incipient stage, but an interesting feature suggesting future possibilities was the carriage of early fruit and other food specialities (e.g. strawberries from Bulgaria, oysters from Yugoslavia, caviare from Roumania) to western markets. The combined

luggage and freight traffic of the national air lines operating in Poland, Czechoslovakia, Austria, Hungary, Roumania, Yugoslavia and Greece was only about 1,500 tons yearly. It should be added, however, that international lines (French, British and German) were also serving the several countries and carried a considerable part of the traffic.

#### FUTURE REQUIREMENTS: GENERAL CONSIDERATIONS

The picture that emerges from the foregoing survey of conditions before 1939 is that of a transport network which was generally sparse, but which had a considerable excess capacity in relation to the actual goods traffic it was called upon to carry. The system of communications was unbalanced as between its component parts, in particular as between railways and roads, which has no doubt contributed to its insufficient utilization. It was also unequally developed in relation to its various functions and their interplay. Taken as a whole, external communications were far better developed than internal communications; to a large extent they formed the axis to which the whole transport system was geared. Under-development was most acute in local communications, particularly in the matter of secondary roads.

As to particular forms of transport, sea transport was generally on the increase. It was affected by the irregular flow of cargoes rather than by shortage of handling capacity. Similarly, inland water transport was well equipped for normal goods traffic on the Danube; in Poland, however, it was severely handicapped by lack of river regulation. The main deficiency of railway transport was the layout of the network, which no longer corresponded to the political and economic relations established within the new frontiers. In addition, both rail and, still more, road transport suffered from qualitative deficiencies: the first from inadequate equipment, the second from the extremely poor condition of the greater part of the roads. Air transport was still in its beginnings, but it was established throughout the region.

The deficiencies of the existing system, as related above, give only a rough indication of the requirements of the future. Precise quantitative conclusions would be fallacious, as neither capacity nor tasks, as they were before 1939, could be taken as

fixed quantities. Capacity has been affected by wartime changes which, in the nature of things, are of a more lasting character than changes in, say, agricultural production. The tasks, on the other hand, are bound to change considerably, both in quantity and kind, as a result of any such general economic and social reorganization as that contemplated in this report. A closer regional collaboration in the economic sphere would require easier communications between parts of the area to correspond to the new currents of intra-regional trade. With a sufficient degree of co-ordination, a regional transport policy could also take full advantage of the most conveniently situated points of entry and exit. In the case of sea transport a regional pooling of cargoes would ensure a more regular flow of traffic and accordingly cheaper freights.

Beyond such general considerations the question arises what are the desirable lines of development for the several means of transport? So far as railways are concerned, their restoration to working order and re-equipment is likely to present a huge task which may postpone new construction on any large scale for some considerable time. Even in the long run, the improvement of the existing railway system appears to be more important than new building, except where special conditions call for sectional construction. In Poland, it is true, several factors combine to make railway construction an urgent requirement. Except for the westernmost parts of the country, railway density is low in relation to both area and population; the type of traffic suits the railways, and topographical conditions are also suitable. Even there, however, the re-equipment and modernization of the existing system should, it is considered, form the more important part of a railway programme. Needed improvements are the modernizing of the signalling system, new systems of train control, the provision of additional loops (which would increase traffic capacity without a doubling of the track), etc. Electrification would seem to be a desirable long-term objective for areas with a great traffic density and for certain mountainous regions, especially if the power development projects mentioned in the chapter on industrialization should come to fruition.

As regards roads, the need for the improvement of existing roads is matched by the need for new construction on a large scale. As we have seen, secondary roads in particular are

grossly inadequate even in relation to existing main roads and railways. The various classes of roads will have to be planned locally in accordance with the type and volume of traffic anticipated and the available road building materials. It would lead us too far to enter into technical details here. All that can be said in a general way is that heavy motor roads do not seem immediately necessary except at the approaches to large cities and ports. Instead, greater attention should be paid to the improvement of secondary roads. Past experience suggests that roads of better quality will be cheaper in the long run owing to their lower renewal and maintenance costs. The special requirements of horse-drawn traffic will also have to be taken into consideration.

The problem of waterway development is one on which it is impossible to give a definite opinion. This type of construction usually involves a high capital cost, although this cost in itself shows extreme variations according to geographical and physical conditions. In most cases, however, the navigational aspect forms only part of wider water conservancy projects which may embrace flood control, irrigation and the harnessing of water power. Sometimes these latter aspects may even predominate over that of communications. We may recall in this connection the unused water power resources referred to in the chapter on industry, and their possible value for industrial and general development. The conclusion therefore would seem to be that the possibilities of waterway development should be examined in the light of concrete plans and from an over-all point of view; that is to say, all aspects of any particular project should be considered together and in relation to alternative solutions as well as to competing capital requirements.

The development of commercial aviation will probably be undertaken within a broader international framework, and the part to be played by the countries of the region in such a scheme will therefore be governed by wider considerations. Too little is known on the subject at the present moment to say anything concrete about this, but that does not mean that the influence of air transport could be left out of account in any long-range planning of communications.

Any quantitative estimate of requirements in the several means of transport must belong to the realm of speculation.

Not only are physical conditions entirely different in various parts of the area, but the unequal development of communications is, and must to a large extent remain, conditioned by the unequal degree of general development. The railway density of Austria and Czechoslovakia before the war approached that of western Europe. If the railway density of the whole area were to be brought up to the same level, the total railway mileage would have to be increased by some 45,000 km., i.e. by 65 per cent. (For the sake of comparison it may be mentioned that in the period 1920-1939 Poland, which carried out the most extensive railway programme in the area, added a total of some 1,800 km. to her railway mileage.) If the density of roads for the area as a whole were to be brought up to that of Czechoslovakia before the war, the existing road mileage would have to be increased by 100 per cent (leaving aside the fact that so many of the secondary roads in the Balkans are not roads but tracks). But there is also another quantitative factor to be considered: national output per head in Czechoslovakia was more than double that in the Balkan countries. It would be unrealistic to work out transport plans without relating them to this factor. An appraisal of transport needs in concrete terms would be possible only if and when the elements for an estimate of future national output are known.

There is, however, one important question which must be dealt with: that is, the relation between the specific requirements of transport development and productive capacity, i.e. requirements in labour, material and equipment, and resources in the same terms.

## THE REQUIREMENTS OF TRANSPORT DEVELOPMENT:

### THE INVESTMENT ASPECT

As in the case of industrial development, investment in transport raises two problems: requirements in total capital and requirements in specific resources. The first of these is left more conveniently for discussion in the concluding chapter, where investment requirements for transport are correlated with those in agriculture, industry, housing, etc. The problem of requirements in specific resources and their implications can, however, be briefly considered on lines similar to those followed in the chapter on industry.

The outstanding feature of investment in transport is the large proportion of labour cost. Figures available on past expenditure on transport construction show the following rough proportions:

	RAILWAYS	ROADS	WATERWAYS
	%	%	%
Labour . . . . .	35-50	50-70	55-80
Material . . . . .	40-50	20-30	10-15
Construction Equipment .	5-15		

Imports were largely confined to equipment and were on the average about one-half of the construction equipment required. It must be stressed, however, that all the figures are in the nature of broad estimates; also, they exclude the cost of rolling stock, vehicles, etc. But even within these limits they help to bring out the main implications of transport development.

We will assume for this purpose, merely by way of illustration, a transport development scheme covering main-line railways and highways only, and providing for a total investment of 500 million dollars (this broad formulation leaves open the number of countries participating, and the period in which the scheme would be carried out). Expenditure on railway and road construction is assumed at the ratio 1:2 (at pre-war costs, this would allow the construction of 3,000 km. of railway and 5,000 km. of trunk roads suitable for medium traffic). On the basis of the estimates given above, the distribution of the total expenditure would show something like the following picture:

BREAK-UP OF TRANSPORT INVESTMENT  
(In Million Dollars)

	TOTAL COST	WAGES	MATERIAL		EQUIPMENT		MISCEL- LANEOUS COSTS
			HOME PRO- DUCED	IM- PORTED	HOME PRO- DUCED	IM- PORTED	
Railways .	165	75	55	5	7.5	7.5	15
Roads .	335	190	80	—	15	15	35
TOTAL .	500	265	135	5	22.5	22.5	50
In % .	100	53	27	1	4.5	4.5	10



Tentative as these figures are, they provide some basis for comparison with the requirements of industrial development. In contrast with the latter, in the case of transport the main requirement is manpower: an investment programme of 500 million dollars would employ something like 1-1.2 million man-years. Hence the decisive factor is to what extent the increased demand created by the additional employment could be met by the supply of consumer goods, especially manufactures; the problem of construction materials and in particular building equipment remains a secondary one.

Investment in transport development therefore offers certain advantages of flexibility in the case of the under-developed parts of the region. The backward areas which stand most in need of better communications also have a large reservoir of unskilled labour in their surplus agricultural population; and even large-scale industrialization would hardly be sufficient to absorb this surplus, whilst it would increase still further the need for improved transport. All these conditions speak strongly in favour of transport development. At the same time, the development of transport in the more backward countries presents special problems just because of their low productive capacity, which would soon create shortages in specific consumer goods and materials. Pending the building up of industrial capacity, these countries would have to give priority to projects using locally available labour and materials, e.g. secondary roads,—an objective which coincides with their most pressing requirement. Furthermore, in the first phase of development part of any capital help from outside may have to be provided in the form of mass consumer goods, as these will help to mobilize more fully existing idle resources. Here, however, we reach the domain of investment policy in its general aspects, a subject to be discussed in greater detail in the concluding chapter.

(For further statistical data see Appendix).

*Sources* (in addition to those quoted in the text):

*Argus*, Bucarest.

Department of Overseas Trade, Reports.

C. Evelpidi, *Les Etats Balkaniques*.

International Labour Office, *Public Works Policy*.

League of Nations, *National Public Works*.

*Süd-Ost Economist*, Budapest.

*The Geographical Magazine*, London; and various other periodicals dealing with transport matters.

## CHAPTER V

### MARKETING

The problem of marketing has a number of specific aspects for the countries considered in this study. The changes in agricultural and industrial production, which previous chapters have suggested as both desirable and practicable, call for parallel adjustments in the mechanism of marketing. Moreover, an adequate system of marketing services is essential if the still largely closed rural economy of the backward areas is to be brought into the marketing circuit.

#### THE STRUCTURE OF THE MARKET

The wide variation in marketing services in the several countries considered here is shown by the percentage of the population engaged in these services. The respective data are given below, together with figures illustrating the degree of general economic development.

#### EMPLOYMENT IN DISTRIBUTIVE SERVICES

COUNTRY	YEAR OF CENSUS	PERCENTAGE OF ACTIVE POPULATION ENGAGED IN			APPROXIMATE NATIONAL INCOME PER HD.
		DISTRIBUTIVE SERVICES	TRADE ONLY	INDUSTRY INCL. HAND'GFT.	
Austria . .	1934	15.4	12.8	34.4	U.S. \$ 150-160
Czechoslovakia	1930	12.2	8.6	37.9	150-160
Hungary . .	1930	10.1	7.0	23.9	90-100
Poland . .	1931	9.7	5.3	16.7	90-100
Greece . .	1928	11.7	6.2	28.2	60-70
Roumania . .	1930	4.9	3.2	10.0	60-70
Bulgaria . .	1926	4.5	2.9	8.5	55-65
Yugoslavia . .	1931	4.1	2.7	10.7	55-65

*Source: National Statistics.*

Although the figures of national income must be treated with reserve, they may suffice to indicate the order of magnitude; to that extent the close parallel between national income and the development of marketing services is noteworthy.

The second important factor which determines both the extent and type of the existing marketing services is the distribution of population as between town and country. Taking localities with over 20,000 inhabitants as the dividing line, we get the following picture.

POPULATION IN TOWN AND COUNTRY  
(Year: Latest Pre-war Census for each Country)

COUNTRY	TOTAL POPULA- TION	POPULATION IN LOCALITIES WITH OVER 20,000 INHABITANTS		POPULATION IN OTHER LOCALITIES	
		Millions	%	Millions	%
Austria . . .	6.8	2.5	36.7	4.3	63.3
Czechoslovakia . .	15.2	3.2	21.1	12.0	78.9
Hungary . . .	9.1	3.2	35.2	5.9	64.8
Poland . . .	35.1	6.0	17.1	29.1	82.9
Greece . . .	7.1	1.7	23.9	5.4	76.1
Roumania . . .	19.9	2.8	14.1	17.1	85.9
Bulgaria . . .	6.3	0.8	12.7	5.5	87.3
Yugoslavia . . .	15.5	1.8	11.5	13.7	88.5

Source: National Statistics.

The different nature of the problem of distribution as between town and country becomes clear when it is realized that the average population of a village, say, in Bulgaria, is about one thousand; and that the total cash income of the 175 households or so composing the village may be only between £2,000 and £3,000 a year. This difference in the level of cash incomes, together with inherently different modes of life, makes for widely divergent consumption patterns as between town and country. An analysis of rural and urban family expenditure in Bulgaria is given on the next page.

That is the picture on the consumption side. When one turns to the production side, and in particular to food production, the effect of local conditions is no less marked. The food output of the eight countries is produced on something like 14 million separate and independent agricultural holdings. Only part

## FAMILY BUDGETS IN BULGARIA

	RURAL FAMILY <sup>1</sup> (Smallholder) (including income in kind)		URBAN FAMILY <sup>2</sup> (Unskilled Worker)
	VALUE OF GOODS CONSUMED	CASH EXPEN- DITURE	VALUE OF GOODS CONSUMED = CASH EXPENDITURE
	Total Income: Leva 24,000		Total Income: Leva 32,000
	Leva	Leva	Leva
Food . . . . .	16,500	1,500	17,900
Shelter . . . . .	1,820	1,250	6,650
(incl. Fuel, Lighting)			
Clothing . . . . .	3,450	1,850	3,360
Other Goods and Ser- vices . . . . .	2,230	2,230	4,090

Source: <sup>1</sup>Bulgarian Institute for Agrarian Research, quoted by *Süd-Ost Economist*, 4th August, 1939.

<sup>2</sup>I.L.O., Year Book of Labour Statistics, 1942.

of these, namely the large and medium holdings—accounting altogether for some 35 per cent of the total agricultural area—are exclusively engaged in commercial farming. The most widespread type of holding, the small holding of 5-10 hectares, sells only such part of its output as will secure its minimum cash requirements. The proportion of farm output sold shows wide variations, according to the size of the holding, existing communications and general economic development. The average figure, in relation to total farm output, was about 30 per cent for the less developed parts and rose up to 50 per cent in the more advanced western parts of the region. (The proportion in Denmark or Holland is 75-80 per cent). The proportion sold also varied according to the nature of the produce. It was highest for meat, milk, eggs, fruit and vegetables—approximately in the given order—lowest for cereals and potatoes. That conforms to the well-known phenomenon in peasant agriculture, that the food of higher value is sold while that of inferior quality is consumed at home.

The following average figures for Roumania may be taken as fairly representative of the less developed countries.

## MARKETED OUTPUT IN ROUMANIA

	PER CENT OF OUTPUT CONSUMED IN THE HOUSEHOLD	PER CENT OF OUTPUT MARKETED	
		(a) Internally	(b) Exported
Cereals . . . .	75	12	13
Potatoes . . . .	91	9	—
Pulses . . . . .	70	16	14
Fruit and Vegetables .	68	28	4
Slaughter Animals . .	49	44	7
Milk . . . . .	55	45	—
Eggs . . . . .	65	20	15

Source: *Argus*, Bucarest.

The marketing of manufactures was similarly determined by the basic conditions of settlement, production and communications. In the western part of the region, where industry was fairly well developed, urbanisation more advanced and communications better, there was a regular two-way flow of goods. By providing an expanding market for agriculture among the growing number of urban consumers, the new industries also found ready outlets for their own products. In the less developed parts, however, the interchange was still limited, with the result that agriculture lacked markets, while industry catered predominantly for the town population. As a counterpart to an agriculture which sent only about 30 per cent of its output to the market, we find an industry selling its products, with the exception of a few mass articles, largely to urban consumers and to the State for military and other public needs. No detailed figures are available on the distribution of industrial goods as between town and country, but it may be estimated that in countries like Roumania, Yugoslavia and Bulgaria less than 20 per cent of the total output of manufacturing industry reached the rural population.

Apart from some mass consumption articles such as sugar, matches, tobacco, salt, etc.—which, as will be shown later, were handled by State monopolies or subjected to large excise duties—the greater part of the articles for household use in these countries was still produced in the village. A fairly large though rapidly decreasing part of clothing articles was made in the

peasant household, either from home-grown raw materials (wool, flax, hemp, etc.) or from cotton yarn or piece goods bought in the market. A substantial part of rural, and indeed of town consumption, of clothing and footwear (and so on), in the less developed areas was supplied by handicrafts.<sup>1</sup> Some idea of the relative importance of handicrafts may be derived from the fact that in 1936 the number of persons engaged in handicrafts in Bulgaria was 135,000, or nearly half the total number of persons recorded in the 1934 census as engaged in "industry and mining". It should be added, however, that Bulgaria was the least industrialised of the countries considered. In countries like Czechoslovakia and Austria handicrafts—other than those catering for the building trades and for luxury trades—were less widespread. (Some additional figures on the distribution of handicrafts are given in the Appendix.)

To round off the picture, something should be said about the place of exports and imports in the market structure. In the agricultural countries of the region, where the internal market—as has been seen—is small, exports formed quite a substantial part of the marketed agricultural output. Consequently the organisation of export marketing is an essential one calling for special machinery. As to imports, these showed a great diversity with a marked shift, as a result of spreading industrialization, from finished goods to machinery and raw materials.

## FUNCTIONS AND MECHANISM OF MARKETING

### ASSEMBLY TRADE

The first stage in marketing is the disposal of the product by the producer. In view of the peculiar structure and undeveloped state of the market described above, it is hardly surprising to find that a large amount of direct selling took place by the producer to the final consumer, without the intervention of any distributive agency. The part played by handicrafts, with wares sold locally and direct to the consumer, has already been referred to. Even more widespread was the sale of agricultural produce by the small producer direct to town consumers. The greater part of vegetable, fruit and other

<sup>1</sup> In Yugoslavia, for instance, 65 per cent of the footwear requirements of the peasant population and nearly 50 per cent of those of the total population was produced by peasants and village craftsmen.

perishable foods was marketed in this way, and mostly the producer acted not only as retailer but provided also his own transport. The wastefulness of this method of marketing is evident if one considers that the sale of, say, a cartload of vegetables or fruit, which might yield at best ten shillings (or, in terms of purchasing power, the equivalent of a pair of boots), often involved two trips of together anything between 10 and 30 miles by cart (mostly undertaken by night); the payment of a toll; standing in the market place from early morning until late afternoon; the risk that the produce might remain unsold, which meant a total loss; and, in view of that risk, a market with violent hour-to-hour fluctuations.

More advanced types of marketing were found in the neighbourhood of large cities, for purposes of export, and in areas where facilities existed for canning or other processing. Here one found the beginnings of an organised assembly trade, with local buyers, acting either as agents or as wholesalers for their own account. This method was used in particular for fruit, often picked by the buyer who had purchased the crop. A rudimentary assembly trade existed also for eggs and poultry, at least in districts specializing in these products. Larger live-stock was sold either to a wholesaler at a special market or direct to butchers. Draught animals and breeding stock were sold direct to users, mostly at cattle markets.

Milk was marketed in a variety of ways. In the less developed areas the small producer himself sold and delivered, bringing the milk daily to the nearest town in cans. In the west, co-operative marketing of milk and dairy products was fairly widespread and was gaining in importance. Special milk marketing schemes were also in operation in connection with the supplying of larger towns. In the greater part of the area, however, at least 80 per cent of the milk supply was marketed by producer-retailers.

A fully organized assembly trade existed only for cereals and some other non-perishable agriculture products, such as feeding stuffs, oilseeds, sugar-beet, tobacco, etc. For some of these special marketing organisations were in existence. Sugar-beet, for instance, was mostly grown and sold under contract to the sugar factories grouped in cartels. Tobacco was sold on a similar basis in countries where there was a State monopoly. In Greece and Bulgaria a considerable part of the tobacco crop

was marketed through co-operative organisations. Oilseeds also were often marketed under advance contracts to manufacturers or export organizations. Cereals were sold by the small producer mostly to a local dealer who resold to a wholesaler. The medium and large holdings sold directly to wholesalers or millers. Export of cereals—and of most other agricultural produce—also passed through the hands of one or more specialized export merchants having established connections with foreign markets.

In more recent years official buying and export organizations were set up for cereals in practically every country of the region. The Czechoslovak Grain Company, established in 1934 in the form of a semi-public corporation, with the participation of the producers' and consumers' co-operatives, of the flour mills and private trade, provided an interesting example of combined marketing under public control.

Co-operative societies also played an increasing part in the assembly trade. In some cases they acted as buying agents for the State or were vested with monopoly powers (e.g. compulsory co-operatives of citrus, fruit and wine growers in Greece, grain marketing in Austria). In other cases they handled a fixed quota of exports under special licence. Some indication of the relative share of co-operative societies in the collection of agricultural products may be obtained from the following estimates: in Poland they handled 90 per cent of butter exports, 20 per cent of grain exports, 10 per cent of marketed milk; in Czechoslovakia 60 per cent of marketed grain, 15 per cent of marketed milk; in Hungary 10 per cent of marketed milk, 40-60 per cent of exported cattle and dairy produce; in Bulgaria 20 per cent of egg exports, 20 per cent of the tobacco crop; in Yugoslavia 40 per cent of cattle exports.

As regards the marketing of other than agricultural products, the method of disposal by the producer differed, in the first place, as between handicrafts and manufacturing industries proper. In the case of handicrafts the craftsman marketed his own product, though some attempts were made in recent years to set up joint marketing organizations, in particular for purposes of export. Manufacturers sold either to wholesalers or to retailers, maintaining their own sales organizations; there were also instances of direct retailing to the consumer, especially in the shoe and clothing industries. Joint sales organi-



zations operated by industrial cartels were not uncommon (e.g. sugar, paper).

### STORAGE

Storage is not only an essential part of marketing but it affects the whole system of distribution in all its stages. The marked difference in type and degree of organization for the marketing of non-perishable and of perishable foodstuffs already mentioned had its counterpart in the unequal storage facilities available for the two groups.

Information is scanty on grain warehousing capacity, but total space seems to have been fairly adequate in Czechoslovakia and Austria and to a lesser extent in Hungary, and less so in the other countries. The following data indicate the pre-war situation in some countries of the region:

*Poland:* Capacity in 1938 about 150,000 tons; a new ten-year plan adopted in 1938 provided for the construction of large regional silos (70,000 tons) and of smaller silos (50,000 tons). (Average yearly production of cereals: 7 million tons).

*Hungary:* 69 public warehouses with a total capacity of 400,000 tons, of which 100,000 tons in Budapest. Only 120,000 tons capacity were modern installations. (Average yearly production of cereals: 2.5 million tons).

*Roumania:* Total capacity in 1938: 125,000 tons, of which 39,000 tons modern silos. A construction plan for an additional capacity of 250,000 tons was begun in 1938. (Average yearly production of cereals: 6 million tons).

*Bulgaria:* Except for a few small silos of 500 tons each owned by co-operative societies, there were no modern silos. The capacity of privately owned warehouses is not known.

Apart from the absolute shortage indicated by these figures, there was an uneven distribution of storage space, which was usually located in a few centres of consumption and export. It will also be seen from the figures given that the proportion of silos—with proper installations for drying, ventilation, cleaning and grading—was small.

The situation with regard to cold storage was even more unsatisfactory. With the exception of the western parts of

Czechoslovakia and of Austria, public cold storage facilities were grossly inadequate before the war. Only the capitals and, in some cases, the main ports were equipped with public cold storage installations. For example, Poland had in 1938 two public cold storage plants totalling 19,000 tons at Gdynia, and two of 2,500 tons each in Warsaw and Lodz; Roumania had one plant at Constanza and one at Bucarest (totalling 10,000 tons). In addition, a number of small plants attached to slaughter-houses and processing industries existed in every country. It is interesting to note that cold storage facilities have been considerably expanded since the war, presumably under German direction. In Bulgaria, for example, where cold storage space was negligible before the war, at the end of 1941 the cold storage under public control was 15,500 square metres, that in private hands 17,000 square metres; the total capacity was about 45,000 tons. Even this figure is, however, considerably below total requirements, which are estimated at 100,000 tons.

### PROCESSING

Processing belongs, strictly speaking, to the field of industry, but it has an important bearing on marketing as an alternative and partly complementary means for the preservation of food-stuffs. Some of the industrial aspects and possibilities of processing in the region have already been given in the chapter on industrial development. It may be added that wherever food processing factories were set up in the past, both the marketing organization and indeed the production structure of whole areas were radically transformed. One limiting factor, both for the radius of operation, and in many cases even for the setting up of such plants has been the lack of communications, refrigerated transport and cold storage.

A detailed description of the existing food-preserving and processing industries would require a study in itself. For our present purpose it may suffice to give an indication of their relative part in the marketing of the specific agricultural or animal products involved. From that viewpoint the Polish meat-curing and canning industry, with a yearly output of some 60,000 tons of bacon and 20,000 tons of ham and tinned ham, played an outstanding part. The pulping of tomatoes accounted for a considerable portion of that crop in Hungary

and Bulgaria; in the former the proportion was nearly 50 per cent of the crop. Other typical figures for Hungary (where the industrial processing of vegetables was comparatively well developed) were 6.7 per cent for peas, 7.5 for white cabbage. For fruit, however, the percentage was only 1.2 per cent in Hungary and it was probably not much higher for any of the other countries. All these figures, however, are for 1936; a considerable expansion has taken place since the war began.

## FINANCING

Financing is another essential part of the marketing process. Because of the stringency of money throughout the region, it had to be carried out mostly on funds secured at high cost. The average rate charged for bank advances against warehoused goods varied in the years before the war between 9 and 15 per cent. The rate depended, among other things, on the condition of the warehouse where the goods were stored. If storage was not of a class suitable for the issue of negotiable warrants, the difference in bank charges amounted to as much as 3-4 per cent.

Although agricultural credit for financing production belongs to a different category, the absence of such credit facilities had a close bearing on marketing. It often forced the small producer to throw his crop on the market as soon as it was harvested, or to borrow from moneylenders before the harvest was gathered. Either course is bound to impair orderly marketing. It should be added, however, that both declined somewhat in recent years, thanks to the organisation of credit co-operatives and of state-supported institutes for agricultural credit.

*Risk-bearing* is a further function of marketing at the stock-carrying stage. Being less tangible than the other functions—with which it also overlaps to some extent—there is a tendency to ignore it as an economic function, or to confuse it with speculation in commodities. This is not the place to discuss the limits of legitimate risk-taking. One might mention, however, at least two risks, the commercial character of which can hardly be gainsaid, and which are considerably enhanced by the conditions prevalent in the region. One is the risk of physical deterioration through lack of adequate storage facilities; the other is the risk of excessive price fluctuations brought about by a variety of circumstances—some of them have been men-

tioned and others will be considered below. These extra risks, whether they are assumed by the wholesale trade—which is the case in the more advanced type of marketing organization—or by the retailer or producer-retailer, are likewise bound to add to the cost of marketing.

An important marketing function between assembly and retailing is the preparation of the goods for sale, i.e. *sorting and packing*. In view of the specialized skill and equipment required for this comparatively novel type of service, it is perhaps not surprising that it is not far advanced in the greater part of the region. Both the implications and the deeper causes of this state of things deserve, however, close attention. Its consequences are most acutely felt in the export trade, as foreign markets, especially those in the west, demand special standards of grading and packing. The price paid for ungraded produce, e.g. pulses, clover, seeds, etc., was 30-40 per cent lower than for graded varieties. Even in the case of wheat, a staple commodity, the absence of uniform grades accounted for price differences of 20 per cent or more. Fresh fruit was entirely unsaleable in the more distant foreign markets for lack of adequate sorting and packing.

Admittedly, these difficulties are largely due to the prevailing conditions of production. The large number of small producers, the different varieties and unequal quality of output and the relatively small quantities marketed individually, are so many handicaps to uniform standards. That much could be done despite these difficulties is shown, however, by recent experience in the region itself. During the last few years before the war considerable progress was achieved in the sorting and packing of fruit in Hungary, Yugoslavia, Bulgaria and Greece. Hungary had 46 fruit-packing stations, Yugoslavia 41. The egg-exporting countries (Poland, Hungary, Roumania, Yugoslavia, Bulgaria) introduced compulsory standardization and supervision of quality and packing. Co-operative societies played an important part in many of these activities. The figures given above, while showing a promising beginning, show also the need for a much greater effort in future.

Although strictly speaking it does not form part of marketing proper, *transport* is closely tied up with assembly and distribution at all stages. Our discussion of communications has already shown that lack of adequate communications, especially roads,

makes marketing difficult and costly. One visible result was a substantial difference in local prices, according to the position of the locality in regard to communications. Another deficiency to which reference has already been made was the lack of motor transport, refrigerated transport and containers for the carriage of perishable goods. A third important effect of transport on marketing is produced by unnecessary transportation. Bearing in mind that railway freights form a high proportion of distribution costs for all bulky commodities—in the case of some, like potatoes or coal, they may even exceed the cost of production—the effects of this factor should not be underrated.

## RETAIL TRADE

The organization of retailing in the region took various forms. It was conditioned both by the structure of the market, and by cumulative deficiencies in storage, transport etc. As already mentioned, in many instances and especially in the less advanced parts, retailing was undertaken by the producer himself. Diversified retailing in specialized shops, as known in western Europe, was practised as a general rule only in the western areas, the capital cities and a few of the larger towns. In the remaining parts, groceries, foodstuffs in general and smaller manufactures of everyday use were sold in general stores; in the villages these stores would also sell liquor and buy grain and other produce. Ready-made clothing and footwear were retailed to the rural population mainly in the market towns, the commonest practice being to run special stores for articles of peasant consumption in or near the market place.

Incomplete as the available figures on retail trade are, they help to bring out some salient features. The disproportion between the urban and rural density of retail shops has already been referred to. The figures for Bulgaria show a density of of 17.4 per 1000 inhabitants in towns and 3.8 per 1000 in villages. The average density per country, as a whole, varied with the general state of development and urbanisation. It was 11.2 per 1000 inhabitants in Czechoslovakia, 10.7 in Poland, 9.3 in Roumania, 6.7 in Bulgaria. Specialization according to branches, so far as ascertainable, followed fairly closely the consumption patterns of the environment, the food

trade accounting for from 50 to 60 per cent of the total, textiles from 10 to 15 per cent. One-man enterprises were prevalent: in Poland, out of 374,000 retail shops 344,000 belonged to that category. The average personnel per shop (including the owner) was between 2 and 2.5.

The department type of retail store was rare. A small number of department stores existed in the large towns (in Hungary, for instance, department stores accounted for 1.2 per cent of the total retail turnover). Chain stores were virtually unknown. On the other hand, co-operative retail distribution was making steady progress before the war. There were well-established organizations of consumers' co-operatives in Czechoslovakia and Austria, catering for the industrial population of the towns. The Czechoslovak societies handled ten per cent of the retail trade. In other countries, such as Poland, Hungary and Bulgaria, mixed co-operative societies supplied villagers with articles of everyday use (tobacco, salt, matches, sugar) and with agricultural implements, fertilisers, copper sulphate, etc. In 1937 the Bulgarian societies handled about 25 per cent of both retail and wholesale trade. In Roumania, Yugoslavia and Greece the credit co-operatives increasingly extended their activity in a similar way. In recent years the co-operative movements, apart from those in Czechoslovakia and Austria, were largely financed by the State, which gained thereby a growing influence in their management.

As already mentioned elsewhere, most mass consumption articles were sold at prices and margins fixed by a state monopoly or by industrial cartels. Matches, salt and, in most cases, tobacco were monopoly articles; alcohol, paraffin and sugar were subject to an excise duty, and their sale was supervised by State agencies. The retailing of some of these articles was subjected to a special licence.

It may be added that the organization of the retail trade has undergone considerable changes since the beginning of the war. A large number of small shopkeepers have been forced out of business, partly on racial grounds, partly through labour mobilization. In some countries the co-operative distributive organizations have been strengthened (e.g. Hungary, Roumania, Bulgaria), in others (e.g. Austria) they have been dissolved. State intervention has, of course, increased considerably through the fixing of prices and profit margins,

and similar measures. In accordance with German practice, the influence of industrial cartels has also greatly increased.

### TRADE MARGINS AND THE COSTS OF MARKETING

The whole question of cost and of possible economies in marketing has to be approached from the broader angle of the best utilization of productive resources, for costs of distribution are not in themselves a waste. A good example is the custom described earlier in this paper, under which the peasant producer takes his cartload of vegetables to the town for direct retailing. There is no 'middleman' involved in the operation and the visible cost of marketing is nil. Yet the real cost of marketing is undoubtedly higher than it would be under an organised distribution system.

Before turning, therefore, to the question of distributive margins and their components—each of which might contain elements of waste—let us consider those effects of defective marketing which involve an absolute loss to the national economy. An obvious instance is waste through physical deterioration. Although a certain amount of such waste is unavoidable even under the most efficient marketing, the inadequacy of suitable storage space is bound to increase that proportion. Even for cereals, where the risk of physical deterioration is smaller, and storage accommodation relatively more abundant, the annual loss through lack of storage was estimated at something like 5 per cent of the total output in Poland and in Roumania. (No comparative figures are available for other countries.)

Another important source of loss to the national economy was the lower price obtained for exports on account of inadequate grading and packing. Here again, only broad estimates can be made, but the yearly loss on this account in the period 1934-7 may be put, on a minimum estimate, at £7.5 million for the several countries combined.

Little information is available on distributive margins. Compared with western standards, transport costs and wholesale margins were considerably higher; in the retail trade the difference lay rather in the quality of service (packing, delivery, etc.). The retail price of bread in Warsaw showed the following break-up (1935).

	%
Bread grain (farmer's price)	43
Wholesale trade	7
Miller's margin and transport	13
Baker's margin	37

*Source:* German Institute for Business Research (based on Polish calculations).

In the U.S., wheat wholesale cost was 1.2 per cent, miller's margin and transport together 10.0 per cent; on the other hand, the baker's margin was 55.4 per cent and there was an additional cost of 19.3 per cent for retail trade.<sup>1</sup> (This service was absent in the Polish example, the bread being retailed by the baker). The wholesale margin for grain varied as between the several countries of the region between 5 and 10 per cent., that for cattle and pigs between 12 and 18 per cent. In retail trade, the average gross margin varied between 20 and 23 per cent; costs—i.e. rent, salaries, and direct taxes—between 14 and 18 per cent. An investigation carried out by the Czechoslovak Statistical Office into retail trade in 35 cities (1935) established that prices at the consumers' co-operative societies were, on the average, 5.1 per cent below those in other retail stores.

Distributive margins were especially high for perishable foodstuffs. The following break-up for milk retail prices, with comparative figures for other countries, is illuminating.

COMPOSITION OF THE RETAIL PRICE OF MILK  
(In Percentages)

	WARSAW (Poland)	BELGRADE (Yugo- slavia)	ZURICH (Switzer- land)	COPEN- HAGEN (Denmark)
Producer . . .	30	37.5	63	65
Transport . . .	20	15	} 20	24
Wholesale Trade	34	22.5		
Retail Trade . .	16	25	17	11
	100	100	100	100

*Sources:* F. Wisniewski *Uwazi o przebiegu cen produktow rolnych w okresie, Warsaw, 1935.*

For Yugoslavia: Figures supplied privately.

Switzerland: Quoted by J. Hirsch, *Die Handelsspanne*. Berlin, 1931.

Denmark: *Landbrugsraadets Meddelelser*, Copenhagen, 1943.

<sup>1</sup> Does Distribution Cost Too Much? Twentieth Century Fund.



It may be added that even in the United States, where milk is usually delivered over greater distances and the standard of service is exceptionally high, the farmer obtained 46.8 per cent of the price paid by the consumer.

### PRICE FLUCTUATIONS

Among the indirect effects of defective marketing mention must be made of excessive price fluctuations. The inadequate organization of marketing is, of course, not the only or even the main cause of price fluctuations. There is, however, an interaction between the two in that fluctuations tend to increase distribution costs through the greater commercial risk involved, while fluctuations are in themselves often due to deficiencies in the distribution system, as distinct from general economic factors. To this category belong, for instance, local fluctuations due to inadequate transport and those other facilities to which reference has already been made. Local differences up to 25 per cent for cereals were quite common in the agricultural countries of the region. For perishable goods the differences were much greater; the retail price of milk in different towns of Yugoslavia varied between 2 and 4 dinars, in Roumania between 4 and 10 lei per litre. In the case of fruit and vegetables price differences were even higher, with markets isolated from one another and responding violently to every change in local supply or demand.

Excessive *seasonal* fluctuations were also largely due to inadequate marketing machinery. Lack of storage capacity and of easy financing of stocks provoked a recurring slump in cereal prices immediately after the harvest, usually followed by a steep rise in the late spring. In Yugoslavia, for instance, the price of wheat on the Belgrade Exchange fluctuated in the agricultural year 1935-7 between 126 and 180 dinars, the price of maize between 60 and 118 dinars. (The American wheat price in the same period ranged from 124.87 to 154.58 cents). The main sufferers were, inevitably, the 'weak sellers'. 'Dwarf' holders who consume what they produce but whose cereal crop does not usually last from one harvest to another, were also badly affected.

Again, seasonal fluctuations were even wider in the case of perishable foodstuffs. Egg prices ranged in the winter months about 180-200 per cent above summer prices. While

in season fruit was virtually given away, during the rest of the year it was a luxury inaccessible to the average consumer even in canned form. In Roumania the pre-war consumption of all canned fruit per head of population was slightly over  $\frac{1}{2}$  lb. yearly; rural consumption was practically nil. Only a sum total of all these effects, ranging from waste of food to malnutrition, could therefore convey an adequate idea as to the real cost of inefficient marketing caused by lack of preserving facilities.

#### POSSIBILITIES OF IMPROVEMENT

The facts presented here make it abundantly clear that most, if not all, deficiencies in the existing system of marketing are bound up with deeper economic causes. That being so, these deficiencies could not be effectively remedied without parallel action in other fields. Assuming, however, that such concerted action is forthcoming, certain immediate improvements are clearly called for.

Improvement in *marketing equipment* should provide the first line of attack. Marketing equipment in this sense would include slaughter-houses, weighing-bridges, public market places, storage facilities and even processing plant.

Only part of this kind of equipment could be developed on a regional scale. Improvement of facilities of a local character would be best left to action by local authorities, but in many cases local initiative would have to be stimulated and aided by grants from some central fund. As for requirements in processing plant, these belong in the main to the realm of industrial development, and must form part of the industrialization programme. Their importance for agricultural marketing justifies the high place already given them in the suggested scheme of industrial development. Canning factories, meat and fruit-packing stations, and fruit-drying installations are cases in point.

The central requirement of an improved distribution system in this respect is, however, storage room of adequate size and quality, located according to the main currents of trade. Consequently, the development of storage facilities forms a close parallel to the development of transport and would also call for planning on a regional basis. As has been shown earlier, the greater part of the area is poorly equipped with cold storage facilities. This type of storage will be specially

important if the consumption of perishable foodstuffs is to be encouraged.

The requirements in public facilities for cold storage could best be met by the development of a 'cooling chain' from producer to consumer, with plants for chilling and freezing situated near the centres of production and those for cold storage near the centres of consumption. It would be beyond the scope of these pages to enter here into such technical details as types of plant and their size, the balance between cold storage facilities and freezing plants etc. Another important requirement is the provision of modern silos, equipped for mechanical cleaning, drying, grading and ventilation of cereals, pulses, seed, etc. The silos should also be planned as a network, in varying sizes, and co-ordinated with the development of communications.

The provision of adequate storage facilities would in itself remove one of the main obstacles in the way of *commodity financing*. It would facilitate the generalization of the warrant system, thereby simplifying credit formalities and also lowering bank charges. As long as the volume of such credits is kept within reasonable limits, the banking system, with the help of the central banks, should be able to meet the demand for short-term accommodation. That would not apply, however, to stocks carried over longer periods, in particular to any buffer stocks. The financing of these would constitute a separate problem calling for international action. Special action would also be called for to provide seasonal agricultural credits for financing production and staggered marketing by the producer. Although the question belongs more properly to the supply of working capital for agriculture, its close bearing on the problem of marketing deserves emphasis here.

Improvements on the *organisational* side of distribution are largely dependent on the provision of adequate technical installations and easier finance. For the greater part they could only be undertaken as and when these basic requirements are secured. The meagre data available on comparative costs of distribution do not warrant any concrete recommendation as to the types of distribution best suited for various classes of goods and for different market conditions. Indeed, a factual examination of these problems on the spot by means of a distribution census, would be a first step towards improvement.

It would seem, for instance, that for milk and milk products co-operative distribution offers important advantages. Similarly, the type of semi-public corporation introduced in Czechoslovakia for the assembly and distribution of cereals would be worth investigating, with a view to its possible extension to other countries and to other staple products. A measure of public control over the distribution of the main foodstuffs is not only desirable, but for several years after the war will be inevitable on account of probable shortages. Other general measures that may contribute to the improvement of marketing include the standardization of agricultural and industrial products. In this sphere, too, wide scope would be offered for action on a regional scale.

Improvements in *export marketing* have a twofold part to play. Improvements in standardization, grading and packing would result in better export prices and consequently in a net addition to foreign receipts. Secondly, experience has shown that such improvements lead invariably to the gradual spreading of the higher standards to the internal market as well. These objects would be greatly helped if there were a co-ordinating authority, on a regional basis, which might investigate market requirements, give advice and assistance to producers, supervise the quality of exports, and perform other similar tasks.

Improvement in marketing in the various fields here considered touches upon several aspects of the standard of living. A more balanced diet through improved food preservation, more food through the reduction of waste, better terms of trade through improved export marketing, a more intensive exchange between agriculture and industry through improved channels of communication—all these would make their contribution in different forms, so that it would hardly be possible to size up the total effect in concrete terms. If nevertheless one aspect is singled out to illustrate the implications of possible improvements that is because of its close bearing on the findings of previous chapters. Milk, as has been shown, is a prime requirement for any improved standard of nutrition in all the countries of the region. Dairy farming has also been found to be eminently suitable as a line of future agricultural development. The present chapter has given figures to show that before the war the cost of milk distribution made up 60 to 70 per cent of the retail price, as compared with 35 to

40 per cent in certain western European countries. Assuming that by a series of technical and organisational improvements the total cost of milk distribution could be reduced from 65 per cent to, say, 45 per cent of the retail price, and that this saving in cost were to be shared in equal parts by producer and consumer, the benefit would be substantial for both sides. The producer would receive for his milk 30 per cent more than before and could buy manufactures and other foodstuffs with that increase in income; at the same time the town consumer could buy 11 per cent more milk for the same outlay as before. This one example may help to place the problem in its true perspective. The prospect of intensification in agriculture and of large-scale industrial development hinges as much on improved marketing as on better physical communications.

(For further statistical data see Appendix).

*Sources* (in addition to those quoted in the text):

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## CHAPTER VI

### FINANCIAL ASPECTS

In the previous chapters some concrete problems of production and distribution have been examined and an indication has been given of the broad lines of action that would seem most appropriate for each particular problem. In this chapter an attempt is made to fit together those earlier findings and to suggest ways and means by which requirements could be matched with available physical resources.

The background of the whole problem is the size of the national income, to which reference has already been made in the first chapter. The latest available pre-war estimates of national income for the countries considered are given below.

ESTIMATED NATIONAL INCOME  
(Gross National Income, including Indirect Taxation)

COUNTRY	AMOUNT IN NATIONAL CURRENCY	YEAR	APPROXIMATE EQUIVALENT IN U.S. \$	APPROXIMATE INCOME PER HEAD IN U.S. \$
	(Billions)		(Millions)	
Austria . . .	5.7 Sch.	1935	1,100	150-160
Czechoslovakia . .	67 Kr.	1937	2,400	150-160
Hungary . . .	4.4 P.	1937	800	90-100
Poland . . .	18 Zl.	1937	3,200	90-100
Greece . . .	55 Dr.	1937	550	60-70
Roumania . . .	295 Lei	1937	1,200	60-70
Bulgaria . . .	41 Leva	1935	385	55-65
Yugoslavia . . .	52 Din.	1937	870	55-65

Compiled from World Economic Survey 1937-38, League of Nations, and other sources. It must be stressed, however, that these figures are only broad estimates and are not comparable, as they are based on different methods and different internal prices. For an attempt at an international comparison of "real income" see the estimates made by Mr. Colin Clark, quoted in the Appendix.

The above figures show the great difference in the degree of development reached by the various countries, a fact which has already emerged from the previous chapters. Its importance cannot be over-stressed when considering the supply of capital and methods for its distribution.

### REQUIREMENTS AND SUPPLY OF CAPITAL

The examination of agriculture, industry, transport and marketing has shown the need for additional capital equipment. Other requirements not considered here in detail include housing, schools, hospitals, and other public services and utilities. To give a better picture of these manifold requirements, a tentative list of the main types of necessary capital investment is given below:

- Agriculture:* Increase in livestock.  
Increase in implements.  
Farm buildings.  
Conversion of some arableland into orchards, etc.  
Land reclamation.  
Land amelioration.  
Irrigation plant.  
Drainage equipment.  
Research stations, model farms, etc.
- Mining:* Prospecting and mining equipment.  
Power installations.
- Industry:* Industrial buildings.  
Industrial machinery.  
Power installations.
- Transport:* Railway track and station equipment.  
Roads.  
Waterways.  
Port installations.  
Railway rolling stock.  
Lorries.  
Tugs and barges.  
Seagoing vessels.  
Private cars.  
Air transport installations and equipment.
- Services:* Marketing installations (storage, etc.)  
Electricity, gas, water and other utilities.  
School buildings and equipment.  
Other public buildings.  
Commercial buildings.
- Housing:* Dwelling houses and fixtures.

The question which arises in the light of this diversity of requirements is the distribution of new investment as between

the various fields. Account has to be taken of the need for a balanced economic development; of competing claims upon a relatively small supply of capital; of large requirements in equipment which is not immediately productive. In the past capital development, even within the several national economies, was haphazard and entirely un-coordinated. Investment statistics are apt to be inadequate, and especially so in the case of peasant agriculture; but judging from such indications as annual changes in the number of livestock and in agricultural implements, only a fraction of the total new investment went into those types of capital. The published figures for expenditure on drainage, reclamation and irrigation schemes show much the same picture. According to estimates for Hungary, between 1929 and 1937 there was an actual dis-investment in agriculture; but that seems to be an extreme case. In mining and industry new investment showed wide fluctuations—both absolutely and relatively to total new investment—from country to country and from year to year. On a broad estimate, and over a long period, between 15 and 30 per cent of new investment may have gone into industry and mining. Investment for the development of communications was generally low in the inter-war period, its proportion in the total of new investment being below 5 per cent; Poland, where an extensive railway and road-building programme was being carried out, was an exception. By far the largest part of new investment went into housing. Urban dwelling houses alone claimed between 40 and 50 per cent of all new investment; in Hungary the proportion taken by this kind of investment during the period 1924-37 was estimated at 61.5 per cent.

There can be little doubt that the central direction of investment would become a primary necessity, and indeed the very basis, of any large-scale development programme. The distribution of new investment would vary from country to country according to the existence of specific resources, the degree of development reached, and in particular, the existing and proposed occupational distribution. We will not attempt to work out any detailed figures for the separate countries. But on a broad estimate the distribution of future investment on new development might be conceived on something like the following lines.



PROPOSED DISTRIBUTION OF INVESTMENT  
(In Percentages)

	CZECHO- SLOVAKIA, AUSTRIA.	HUNGARY, POLAND, GREECE.	ROUMANIA, YUGOSLAVIA, BULGARIA.
Agriculture . . .	8	10	15
Industry (including Mining) . . .	30	30	25
Transport . . .	12	15	17
Services . . .	17	15	15
Housing . . .	33	30	28
	100	100	100

It should be made clear that these figures, as indeed any other figures that might be laid down, could only serve as broad targets. The role of the co-ordinating authority would be to guide the flow of capital in accordance with long-range objectives, but with short-run modifications depending on specific productive resources available at any given time and place.

The element against which all these requirements have to be balanced is the total supply of capital. Its components are that part of the national output not used for immediate consumption (i.e. internal savings), and, secondly, capital imports (i.e. foreign savings). The first of these, investment from domestic resources, has its limit in the minimum supply of goods necessary for current consumption requirements. Clearly, this limit will be lower in the case of under-developed countries, where total output barely suffices to satisfy even essential requirements. Moreover, as the least developed countries in the area with which we are concerned are predominantly agricultural, the size of the total national output itself is bound to show extensive fluctuations according to the annual harvests.

Figures on the rate of investment in the past are extremely scanty for most countries of the area. Certainly the volume of investment showed wide fluctuations from year to year. Taken over a longer period of time it may be roughly estimated that the rate of gross investment ranged from 8 to 12 per cent

and of net investment from 3 to 5 per cent;<sup>1</sup> the Balkan countries were in both cases at the lower end of the range. These figures, however, include some foreign investment (of which more will be said below). At best, therefore, they may be looked upon as the upper limit of internal saving capacity under pre-war conditions of production and economic organization.

These figures point to important, if negative, conclusions. As the combined national income of the eight countries was of the order of 10 billion dollars, their net investment capacity under pre-war conditions would add up to something like 400 million dollars yearly. Clearly, a total capital investment of that size is wholly inadequate for the requirements of any large-scale development. It would provide less than 150 million dollars yearly for industrial development and something like 60 million dollars for new transport construction in all the eight countries; both figures would obviously fall far short of actual requirements as indicated in the foregoing chapters.

It may safely be said, therefore, that the future development at any rate of the economically less advanced countries of the area will depend primarily on a substantial increase in the volume of investment. Left to themselves these countries could raise their rate of investment out of domestic resources only to a small degree, and even then at the cost of an already all too low level of consumption. It is true that they had before the war a certain amount of idle industrial capacity (perhaps 25 per cent of a moderate total 'practical' capacity), and a large amount of disguised unemployment on the land. But an attempt to mobilize these productive capacities without outside help would soon come up against specific shortages in equipment and raw materials. That could not be made good internally, and hence those countries would be faced with a strain on their balance of payments. The process has been described at some length in the chapters on industry and transport. It has also been shown how these specific shortages might be relieved by organizing the utilization of idle productive capacities on a regional scale. In the more industrialized countries,

<sup>1</sup> Rate of gross investment is taken to mean gross capital expenditure—including maintenance and replacement, but excluding variations in stocks of goods and materials—as a percentage of gross national income. By rate of net investment is meant net capital expenditure as a percentage of net national income.

such as Austria and Czechoslovakia, idle industrial capacity before the war was larger than the whole industrial capacity of the Balkan countries combined; and a fair part of that idle capacity was in industries whose products might have promoted industrial development in those Balkan countries. Regional arrangements for an increased interchange of products, accompanied by a lending of surpluses in the current foreign balance, should therefore facilitate increased investment along with increased consumption for all concerned.

On the other hand, we have also pointed out that the application of this method on any considerable scale would depend on wider international collaboration and on outside help. This is a matter beyond the scope of our inquiry, but it is useful to stress again that regional arrangements in the area cannot do much more than bring about a more rational distribution of such capital help as may be made available from outside, and, in so doing, mobilize some additional domestic resources for investment purposes.

#### SOCIAL SERVICES AND THEIR REAL COST

There are at least two valid reasons for considering social services—using the term in its widest sense—in conjunction with capital investment. As a means of raising the productivity of labour, education, public health and social services are, in the long run, complementary to the provision of equipment. On the other hand, to the extent to which they use up part of the immediately available output they compete with investment. As is clearly shown by past experience, the share of national income available for social services is bound to vary with the size of the real income, being limited by the need to satisfy more immediate consumption requirements—food, shelter and clothing. The approximate figures of public expenditure (State and local) in the two tables on p. 106 show the variation quite distinctly.

Expenditure on the second group of social services differs in some respects from expenditure on education. In the first place, some of these services covered widely varying sections of the population; for example, sickness insurance covered about 4 per cent of the population in the Balkan countries, but over 50 per cent in Czechoslovakia. (Allowance would have to be made for such differences in comparing expenditure as

between the several countries.) Secondly, the greater part of social insurance expenditure differs also in character from expenditure on education, in that it is transfer expenditure; it does not imply a direct charge on the national income, but merely its redistribution.

EXPENDITURE ON EDUCATION<sup>1</sup>

YEAR: 1937

	TOTAL SPENT (IN MILLIONS OF U.S. \$)	AMOUNT SPENT PER HEAD OF POPULATION U.S. \$	PERCENTAGE OF ESTIMATED NATIONAL INCOME (approximately)
Austria . . . . .	52.5	7.70	4.8
Czechoslovakia . . . . .	84.0	5.45	3.5
Hungary . . . . .	22.5	2.85	2.8
Poland . . . . .	80.0	2.50	2.5
4 Balkan countries . . . . .	60.0	1.20-1.40	2.2-2.4

Source: National Statistics.

Expenditure on public health, social insurance and other social security services may be estimated roughly as follows:

EXPENDITURE ON SOCIAL SERVICES<sup>1</sup>

YEAR: 1937

	EXPENDITURE ON SOCIAL SERVICES (EXCL. EDUCTN.) IN MILLIONS	EXPENDITURE PER HEAD OF POPULATION U.S. \$	EXPENDITURE AS % OF ESTIMATED NATIONAL INCOME (approx.)	SOCIAL INSUR. ONLY	
				EXPENDITURE IN MILLIONS OF U.S. \$	AS PER CENT OF ESTIMATED NATIONAL INCOME
Austria . . . . .	65	9.70	6.0	25	2.2
Czechoslovakia . . . . .	120	8.00	5.5	50 <sup>2</sup>	2.0 <sup>2</sup>
Hungary . . . . .	32	3.60	4.0	15	1.9
Poland . . . . .	80	2.40	2.6	30	0.9
4 Balkan countries . . . . .	45	0.95	1.5	15	0.5

<sup>1</sup> The amounts in U.S. \$ are only approximate because of differences in accounting methods and the difficulty inherent in applying the proper rate of conversion.

<sup>2</sup> Excluding unemployment benefits.

Compiled from national statistics and social insurance statistics.

Obviously the economically less developed country cannot afford to spend as much on social services as more developed

countries, even when these services are of the transfer type. The limiting factors are low productive capacity, with a consequent inability to supply the specific goods required by those services, and a primitive fiscal system with its inability to shift the burden of expenditure to higher income groups. The fiscal aspect will be considered in more detail in relation to public finance. The figures presented here are merely intended to indicate the size of one set of requirements in relation to other requirements, and also to the aggregate national output. But it may be permissible to warn against two equally serious errors. One would be to overlook the essential part which improved social services, in particular public education, must play in any plan of development; the other would be to concentrate on the improvement of social services without regard to economic and fiscal capacity.

### THE ORGANIZATION OF FINANCE

The purpose of the foregoing sections has been to sum up the major requirements of a development programme so as to bring them into relation with one another, as well as with the productive resources available. The problem of how to finance development is of a different nature. Finance is only an instrument; it cannot do more than ensure the execution of tasks that are physically possible. But the smooth operation of the financial instrument is in itself a task of considerable difficulty. The difficulty, moreover, is bound to be greater in economically less developed countries. The financial technique of development must be considered from the outset, or the best laid plans for the utilization of physical resources may be held up or even wrecked.

We have shown that the import of capital (i.e. foreign savings) would have to play an essential part in any large-scale development of the area. Indeed, not only must the extent and the form of outside assistance influence the pace and direction of development, but it would affect also the shaping of internal financial policy and, to a certain extent, even of financial machinery. At the present moment too little is known about these outside factors to warrant any specific conclusion, but a brief examination of past experience in the region may be instructive.

Foreign capital played an important part in the economic opening-up of the area and continued to reach most of the countries also during the inter-war period, at least until 1931. According to the report presented by the League of Nations to the Stresa Conference in 1932, the external debt of the eight countries was as follows.

## EXTERNAL DEBT

	LONG-TERM		SHORT-TERM		TOTAL	TOTAL FOREIGN DEBT PER HEAD OF POPULA- TION	PUBLIC LONG- TERM DEBT PER HEAD OF POPULA- TION
	PUBLIC DEBT	PRIVATE DEBT	PUBLIC DEBT	PRIVATE DEBT			
	(In millions of U.S. Dollars) <sup>1</sup>					U.S. \$	
Poland .	537.9	34.2	—	285.0	857.1	26.70	16.80
Czecho- slovakia .	280.2	44.2	—	67.3	391.7	26.50	18.90
Austria .	213.5	101.9	14.0	126.5	465.9	69.40	33.40
Hungary .	316.7	138.3	58.1	212.7	725.8	83.10	36.40
Roumania .	904.8	29.0	<sup>2</sup>	78.8	1012.6	56.20	50.30
Yugoslavia .	572.9	N.A.	55.8	N.A.	628.7 <sup>3</sup>	45.20 <sup>3</sup>	40.90
Bulgaria .	121.2	9.8	—	6.5	137.5	22.70	20.20
Greece .	414.0	37.3	8.7	5.0	465.0	72.70	64.70

<sup>1</sup> Converted from Swiss francs, as given in the Report, at the rate 5.20.

<sup>2</sup> Included in the long-term public debt.

<sup>3</sup> Public debt only.

According to these figures the total external debt, excluding direct investment, was about 4.7 billion gold dollars; of this 3.75 billion dollars was funded debt, including 3.4 billion public long-term debt. The total borrowed in the inter-war period (long-term debt only), may be put at about half the latter figure.

It has been pointed out already that a great part of the debt, both before and after 1919, served to cover budget deficits and for currency stabilization. The allocation of a certain portion of these loans for capital development was only incidental; such development as did take place out of foreign loans was mostly in the field of transport. On the other hand, a

considerable part of the private short-term debt was used for financing capital development, especially in industry.

Also included in the long-term debt are the special international loans given for certain specific purposes of reconstruction or development: e.g. the Greek loans for land reclamation and flood control and for the construction of school buildings; the Hungarian loans for the construction of power stations; and loans to Austrian towns for the development of municipal utilities. The proportion of these loans was, however, not large. It was certainly less than 10 per cent of the total foreign debt.

Direct participation by share-holding (which is not included in the above figures) was the prevalent type of foreign investment in industry and mining. In some countries, particularly in Yugoslavia and Bulgaria, it played a very important part. Such figures as are available have only limited value, as it is notoriously difficult to establish the ownership of share-holdings; moreover, the nominal capital bears little relation to actual values. Recent pre-war estimates put the proportion of foreign capital holdings in the mining and manufacturing industries at over 50 per cent for Yugoslavia, and 48 per cent for Bulgaria; but as these figures were based on the share capital of limited companies (*sociétés anonymes*) only, they are probably an over-estimate. It may be added that the more developed countries, in particular Czechoslovakia and Austria, had themselves investment holdings in other parts of the region, notably in Yugoslavia.

Direct foreign participation was most widespread in the extractive and heavy (capital-intensive) industries. But more recently in pre-war years there was an increasing tendency to buy out foreign capital in the heavy industries and to bring them under national, mostly State, control. A certain amount of direct foreign investment was also to be found in public utilities, especially in the development and distribution of electric power. Foreign capital also held important interests in banking, especially in Yugoslavia, Bulgaria and Roumania; because of the widespread custom of banking participation in industry it therefore constituted an additional source of industrial finance.

Although no forecast is possible as to the extent and type of capital imports that might be available in future, the objective

of financial policy and machinery on the receiving side must be in any case to ensure the best utilization of such foreign capital as may be forthcoming. In this respect the use of government loans provides the most relevant experience from the past. The defaulting of debtor governments after 1931 led to many acrimonious controversies, but it should be possible to examine in a detached way the major causes which contributed towards it.

(a) As already pointed out, only a small part of government loans had been used for increasing the productive capacity of the borrowing country. Instead of being used for the import of capital equipment, or alternatively of consumer goods that might release domestic resources for investment purposes, the proceeds of a considerable part of the foreign loans had been used to accumulate private balances abroad and to pay for non-essential imports. In one country of the area, for which comprehensive figures are available, about 70 per cent of the sums borrowed between 1924 and 1931 was wasted in this way.

(b) In addition, most foreign loans carried excessive interest charges. The nominal rate of interest varied from 6 to 9 per cent, but the low price of issue and other charges raised the actual burden to 8-12 per cent and in some cases higher still.

(c) The burden became still heavier after 1930 through the slump in commodity prices; for the agricultural countries the real burden of the external debt was thereby increased by 100 per cent or more.

Facts such as these are commonplace today, but their implications are perhaps still not fully realised. According to the League of Nations report quoted above, the service of the external debt in 1931-32 (including interest on short-term debt) claimed 49 per cent of the total exports of Greece, 48 per cent of those of Hungary, 29 per cent of Yugoslav exports (service of public debt only), 28 per cent of Roumanian, 24 per cent of Polish, and 22 per cent of Austrian. Except in the case of Austria and Greece, exports provided between 75 and 85 per cent of current foreign receipts in those countries. (See table on balances of payment page 156 of the Appendix). It should be added that these figures on interest charges represent percentages related to total exports, whereas the servicing of foreign



loans called in fact for "strong currencies" obtainable only from a limited range of exports. The actual strain on the balance of payments was therefore considerably heavier.

What lessons can be derived from all this for the future? There is no need to-day to dwell on the importance of collective action for removing the international causes of past failures. But to make foreign investment sound for both sides it would also be necessary to ensure that capital imports should be utilized for productive purposes and distributed according to a co-ordinated plan. The machinery for the distribution of foreign capital would depend, on the one hand, on wider international arrangements and, on the other, on any regional arrangements made for that purpose. But it is no exaggeration to say that the judicious distribution of foreign capital in relation to over-all and long-range requirements would be as important as the amount of capital made available.

#### MONETARY MEANS

The task of internal finance in relation to capital development, as pointed out earlier, is to mobilize domestic physical resources for whatever purposes may be envisaged. The internal capital market together with the banking system are considered here in regard to that function.

Former methods of financing capital development in the countries of the area help to throw some light on this problem also. In the less developed countries by far the greater part of investment was financed without recourse to the market, i.e. by self-financing. Investment through the medium of stock exchanges formed less than ten per cent of all investment in the Balkan countries; in Czechoslovakia, Austria and Hungary, the proportion may have been 15-20 per cent. Bank loans and participations, on the other hand, played a larger part in financing capital development than is the case in western countries. In accordance with Central European practice, there was no dividing line between investment and deposit banking, and commercial banks were actively engaged in development finance, partly by direct participation, partly by 'frozen' loans which for all practical purposes were equivalent to long-term investment.

Again, public investment played a relatively larger part than in the West. This was due partly to the fact that railways,

many utilities, and a considerable part of mining and forest resources were publicly owned. The proportion of public investment in the countries of the region may be estimated at 10-15 per cent of total investment; it showed everywhere a rising tendency. Before 1931, it was financed mainly out of public loans issued on the internal capital market and abroad; after that date, largely out of other forms of direct and indirect borrowing to which further reference will be made in the section on public finance.

Another method of investment of a public character which gained in importance in the thirties was through social insurance funds. Most social insurance institutions were operated on a reserve accumulation basis and invested their funds in government securities, in building, and even in industry. The relative importance of this method of financing varied with the scope of the social insurance institutions in the several countries. In Czechoslovakia, where the Central Social Insurance Institute had a membership of 3.6 million, total investments by that body at the end of 1936 amounted to about 9 billion Czech crowns (about 320 million dollars). In other countries the relative importance of this method of financing was much less.

The way in which capital development was financed differed as between the various fields. In agriculture, mortgage loans were widespread before 1931; later, however, lending to agriculture stopped almost completely, and such investment as did take place was financed out of the farmer's own funds. Certain types of investment, such as agricultural buildings, farm homesteads, etc., were carried out by farmers and peasants mainly with their own labour and with only a small money outlay; hence also the difficulty of estimating investment in agriculture.

In industry about half of all new investment was met from the owner's own funds and from undistributed profits, and called for no special finance. The rest was contributed by the market, i.e. banks and stock exchange issues. Before 1931 the sources of finance were accumulated savings and foreign capital; after the crisis the bulk was ultimately financed with credit supplied by the central bank.

Methods and sources for financing housing were varied. The most widespread source of finance was the owners' private

savings. House-building had always been the traditional form of saving and investment for the small man; it tended to assume even greater proportions in periods of unstable monetary conditions like the inter-war period. In recent years there grew up side by side with this type of housing investment also institutional forms of housing investment. Building by social insurance institutes has already been referred to; in addition premium funds of private insurance companies, and even part of the accrued profits of foreign investors which could not be transferred abroad, were invested in housing. There was also a growing volume of co-operative building, in various forms, especially in Czechoslovakia, Poland and Bulgaria. Some public housing schemes—the best known were those in Vienna—were financed out of municipal budgets. In other cases the State granted subsidies, tax concessions and other means of assistance so as to promote building.

Lending on mortgage was generally on a moderate scale because of the scarcity of long-term capital. Insurance companies, savings banks and special mortgage banks engaged in some such lending before 1931; some of the latter were financed with foreign capital.

What has been said above only indicates broadly some of the salient features of prevailing methods of investment. To come to the methods of accumulating money savings, some idea may be obtained from the following tables.

MONEY AND DEPOSITS (In millions of national currency)

	MONETARY CIRCULATION (NOTE ISSUE AND COINS) END 1937	TOTAL BANK DEPOSITS (INCLUDING SAVINGS BANKS) END 1937	AVERAGE YEARLY INCREASE IN DEPOSITS 1934-37 (IN ROUND FIGURES)	YEARLY INCREASE AS PERCENTAGE OF ESTIMATED NATIONAL INCOME
Poland . . . . .	1,500	3,530	190	1.1
Czechoslovakia . . . . .	8,040	72,350	1,050	1.6
Austria . . . . .	1,480	3,410	—	—
Hungary . . . . .	545	2,710	60	1.4
Roumania . . . . .	34,100	(29,500)	(2,200)	0.8
Yugoslavia . . . . .	6,670	14,600	475	0.9
Bulgaria . . . . .	3,820	15,100	820	2.0
Greece . . . . .	7,160	22,600	860	1.5

Compiled from *Money and Banking*, League of Nations, 1939.

Too much should not be read into these figures; the totals for deposits are affected by the fact that the whole of the pre-1919 deposits had, in several countries, been wiped out by inflation. The rate of yearly increase does, however, offer some indication of the habit of saving in the form of deposits. As will be shown later, this aspect has a close bearing on methods of financing development.

Another relevant fact is the proportion of personal savings in total deposits. Some idea of it may be gathered from the following figures.

SAVINGS AND DEPOSITS  
(In millions of national currency)

	TOTAL "SMALL SAVINGS" <sup>1</sup> END 1937	TOTAL COMMERCIAL BANK DEPOSITS END 1937	"SAVINGS ACCOUNTS" WITH COMMERCIAL BANKS END 1937	AVERAGE YEARLY INCREASE IN (1) PLUS (3) 1934-37 (round figures)
Poland .	2,168	1,359	622	140
Czechosl. .	47,646	24,690	13,575	850
Austria .	2,102 (1936)	1,307 (1936)	280	70
Hungary .	358	1,643	926	45
Roumania .	5,942 (1933)	21,882	12,682	1,300
Yugoslavia .	7,289	7,311	6,010	350
Bulgaria .	6,145	3,359	N.A.	(400)
Greece .	5,979	16,686	7,061	1,200

<sup>1</sup> Deposits at Post Office Savings Banks, savings associations, co-operative banks, etc. (See also Appendix, page 160.)

Compiled from *Money and Banking*, League of Nations, 1939.

In the Balkan countries, in particular, a relatively large amount of saving took the form of hoarding of notes. Some estimates put such hoarding at 20-25 per cent of the total note circulation. Another widespread method of saving, especially among the rural population, was in the form of gold coins; during the unstable monetary conditions of the inter-war period the public also took increasingly to hoarding foreign

currency. The relative size of these latter forms of saving cannot even be estimated.

The figures and description given above on the chief ways of investment and saving make it clear that western methods can have but a limited application in the area, whether it be a question of regulating investment through the control of capital issues or of financing development from the accumulation of individual savings. Under existing conditions any control over investment activity would have to be exercised largely at the physical end, i.e. through the allocation of materials, manpower, etc. Similarly, the funds accumulating in the capital and money markets in the ordinary way are likely to prove insufficient even for financing development projects for which productive capacity and real resources are available.

Financial policy and machinery would therefore have a difficult and important task to perform. They would have to supplement the financial means provided by the market, in order to ensure the execution of the development programme; at the same time they would have to help to prevent any tendency towards uncontrolled inflation. The problem is not a new one in the area, where credit expansion is by no means an unknown practice as a means of financing government expenditure. But past experience also shows clearly the difficulties inherent in the region's general condition. So far as the less developed countries are concerned, control over supplies and prices cannot be made effective because of the rudimentary organization of the distributive system, and also because of administrative deficiencies. Furthermore, the state of mind of the public is a factor not to be ignored in countries which passed through one inflation in the 'twenties' and which now face the prospect of a second. The contention that from the viewpoint of control over inflation there is little material difference between hoarding and other forms of saving would certainly not apply to the backward countries of the area, where the relation of hoarding to institutional savings differs radically from that of western conditions.

The different monetary effects of credit expansion according to the degree of organization of saving and of deposit banking are well illustrated in the following table, in which monetary changes in the United Kingdom since 1939 are set side by side with those in some countries of South-Eastern Europe.

## MONETARY MOVEMENTS 1939-43

(In millions of National Currency)

		NOTE CIRCULATION				COMMERCIAL BANK DEPOSITS			
		1939	1941	1943	Increase	1939	1941	1943	Increase
United K.	£	555	752	1,070	515	2,441	3,329	4,032	1,591
Bulgaria	Lev	4,245	13,467	22,500	18,255	(15,000)	15,725	25,259	10,259
Hungary	Pengo	975	1,984	4,392	3,417	1,712	2,165	3,207 (June)	1,495
Roumania	Lei	48,000	96,650	145,000 (Oct.)	97,000	15,340	22,900	34,900	19,560

  

		SAVINGS IN SAVINGS BANKS				Ratio of Increase in Note Circulation to Total Increase in Deposits
		1939	1941	1943	Increase	
United K.	£	1,339	2,072	3,136	1,797	1 : 6.5
Bulgaria	Lev	3,613	5,439	10,715 (June)	7,102	1 : 0.95
Hungary	Pengo	135	164	216 (April)	81	1 : 0.46
Roumania	Lei	3,250	5,440	9,666 (March)	6,416	1 : 0.26

In considering the ratios in the last column (between the increase in the note issue and the increase in deposits and savings), it is instructive to refer to the figures of a previous table which gave an indication of savings habits in the various countries of the area (Bulgaria 2.0, Hungary 1.4, Roumania 0.8 per cent of estimated national income). It may be noted in this connection that the price curve shows a similar divergence as between these three countries, moving most steeply in the case of Roumania and least in that of Bulgaria.<sup>1</sup>

<sup>1</sup> Though recent price indices bear little relation to actual price movements, the following figures have a certain interest: (September 1939=100)—Bulgaria (wholesale prices, July 1943) 231.5; Hungary (wholesale prices, October 1943) 280.1; Roumania (retail prices, November 1943) 465.

The foregoing remarks should not be construed as an argument against credit expansion. As already pointed out, this method of financing capital development is hardly to be avoided if the pace of development is to be quickened. But a successful application of the method also demands that every possible safeguard should be taken to check inflationary effects. Thus credit should be distributed in accordance with the requirements of economic policy, i.e. used for pre-determined purposes. The effective performance of that task would call for collaboration between commercial and other banks and the central bank, between the central bank and bodies responsible for economic policy, and finally between the central banks of the region. Some concentration in the banking system, which in most countries of the area has an excessive number of small units, and the creation of special financial institutions for long-term credits for specific types of development, would also help to improve the machinery of credit. A tendency in these directions was already visible before the war.

The second main objective of the savings and credit machinery would be to collect, in the form of savings accounts and credit balances, the largest possible portion of new money, and thereby facilitate control over inflationary tendencies. The development of the savings habit might be promoted by the provision of ampler facilities for the small saver (e.g. co-operative savings associations). Similarly, the use of banks might be encouraged for current money transactions; in the more backward areas even their use for commercial purposes was little known. It should be stressed, however, that measures of this kind can have a prospect of success only if confidence in money is restored and maintained. Success or failure in the field of monetary policy will be due at least as much to the psychological factor as to methods of organization.

### THE FISCAL SYSTEM

The third important lever by means of which the use of physical resources and the distribution of output may be regulated is fiscal policy, through its dual action of spending and taxing. An examination of the working of the fiscal system in the past may provide some guidance for the future.

Budgetary expenditure in 1937 in the countries of the area claimed, roughly speaking, between 17 and 28 per cent of the

national income. The figure was lowest in Roumania and highest in Austria, but the range of difference must be viewed against the respective levels of income. The above figures can lay no claim to accuracy, as the estimates of national income themselves are doubtful, but they may suffice as a general background to the table on the distribution of central government expenditure given on the next page.

Some explanation is required before any conclusions are drawn from these figures. In the first place, comparison between the several countries is affected by differences in the scope of central government activity in relation to the activity of local government authorities and of private bodies. This reservation applies in particular to economic and social expenditure. In Czechoslovakia and Austria, for instance, the greater part of public education was financed by local authorities. "Economic expenditure" includes the maintenance of roads, agricultural subsidies, public works and other expenditure on capital goods; and in the case of some countries, e.g. Austria and Hungary, also railway deficits. In some countries, however, investment expenditure was met partly from special budgets, and, as indicated in the table, is not included in the above figures. Again, military expenditure differed in fact considerably from the budgetary figures, as part of it was financed out of special (and generally undisclosed) funds; it probably claimed at least 40 per cent of total expenditure in all the countries of the area. Expenditure on administration usually included government pensions (which in the case of Hungary formed nearly 40 per cent of this item); but Bulgaria and Greece listed pensions under "debt service". The differences under "unclassified expenditure" are largely due to variations in the main budgetary classifications.

In spite of these evident shortcomings the table below brings out clearly enough the main features of central government expenditure in the countries considered. The most salient fact is the relatively high proportion of expenditure for defence and civil administration: the two items together absorbed over 50 per cent of the total. If to these one adds the fixed charges of the debt service—most of it for deadweight debt—less than one-third of the public budget was left for productive purposes and social services. This figure compared with 60 per cent in the case of Sweden, apart from the fact that in the latter



CENTRAL GOVERNMENT EXPENDITURE  
AVERAGES 1935-37 (or nearest three budgets available)  
(As percentages of total budgetary expenditure)

	ECO- NOMIC EXPEN- DITURE	EDU- CATION	PUBLIC WEL- FARE	DE- FENCE	AD- MINI- STRA- TION	DEBT SERVICE	UN- CLASSI- FIED
POLAND . . . . . Ordinary budget and special funds, including investmts.	17.7	12.3	1.9	34.7	17.8	5.2	10.4
CZECHOSLOVAKIA . . . . . Ordinary budget and special ac/s.	17.9	7.5	9.1	32.2	15.8	10.2	7.3
AUSTRIA . . . . . Ordinary budget, including investmts.	11.8	6.0	11.5	12.8	20.0	13.1	24.8
HUNGARY . . . . . Ordinary budget without special credits	15.7	15.5	4.8	21.3	31.4	7.4	3.9
ROUMANIA . . . . . Ordinary budget, including National Defence Fund and Road Fund	9.6	16.6	3.9	33.2	16.5	12.9	7.3
YUGOSLAVIA . . . . . Ordinary budget, excluding public works	17.1	11.1	2.5	25.9	16.9	10.7	15.8
BULGARIA . . . . . Ordinary budget only, excluding special accounts	14.1	16.2	3.3	24.7	15.1	22.9 <sup>1</sup>	3.7
GREECE . . . . . Ordinary budget, excluding railways and special ac/s.	15.4	7.8	5.9	22.3	17.5	24.6 <sup>1</sup>	6.5
SWEDEN, 1937 . . . . .	18.7	16.8	24.2	16.6	9.6	7.4	6.7

<sup>1</sup> Including pensions; expenditure on debt only was approximately 13 and 15 per cent respectively.

NOTE: Local government expenditure—latest pre-war year available—as percentage of central government expenditure was: Austria 63.7, Czechoslovakia 44.2, Bulgaria 32.7, Roumania 28.9, Poland 26.6, Yugoslavia 26.6; Greece not available. In Sweden it was 67 per cent. For distribution of combined central and local government expenditure, see Appendix, page 164.

(Compiled from German Statistical Year Book, International Section.)

country local authorities also spent considerably more on social services than was the case in the countries with which we are concerned.

The financial sources of budgetary receipts (on the basis of published budget figures) showed the following picture:

#### SOURCES OF REVENUE

(Three-year averages as above, in percentage of total receipts)

	TAXES DUTIES 'AND EXCISE	PROFITS OF STATE ENTER- PRISES	OTHER CURRENT RECEIPTS	NET BORROWING	OTHER RECEIPTS FROM CAPITAL TRANS- ACTIONS
Poland . . . . .	75.6	3.5	7.7	13.2	—
Czechoslovakia . .	65.6	11.2	12.1	8.1	3.0
Hungary . . . . .	92.7	—	6.7	0.2	0.4
Roumania. . . . .	90.5	3.6	3.9	—	2.0
Yugoslavia . . . . .	78.4	6.5	2.3	12.8	
Bulgaria . . . . .	60.8	26.1		—	13.1
Greece . . . . .	76.4	2.9	8.3	11.8	0.6

Compiled from the German Statistical Yearbook, International Section.

Government borrowing played, in fact, a much larger part in public finance, especially after 1932, than appears from these figures. In addition to the non-balancing extraordinary budgets, which are not included in the table, expenditure for certain special purposes, e.g. rearmament, was financed by special loans. (Figures on the increase in internal debt—funded and floating—are given in the Appendix, page 162.) In addition some governments practised a disguised sort of borrowing in the form of deferred payments to public contractors—who in their turn had to obtain temporary finance from the banks—and even to civil servants.

In view of the narrow scope of the capital and money markets in most countries of the area, these different forms of borrowing were ultimately financed largely by the central banks.

## INCIDENCE OF TAXATION

The way in which the burden of taxation was distributed is illustrated by the following figures.

## SOURCES OF TAX REVENUE

(In percentages of total tax revenue, including receipts from State monopolies)

	YEAR	TAXES ON INCOME AND OTHER DIRECT TAXES	TAXES ON PROP- ERTY TRANS- ACTIONS	TURN- OVER TAXES	CON- SUMPTION TAXES (excise)	CUSTOMS DUTIES	MISCEL- LANEOUS
Poland .	1934/5	32.9	7.0	0.5	50.8	5.0	3.8
	1935/6	33.9	6.8	0.5	50.5	5.0	3.3
Czecho- slovakia .	1935	17.9	18.1	23.5	33.7	6.8	—
	1936	18.2	18.0	23.1	33.5	7.2	—
Austria .	1934	22.5	8.1	21.2	31.8	16.4	—
Hungary .	1935	32.9	14.9	19.1	27.3	5.8	—
	1936	31.1	15.5	20.3	27.5	5.6	—
Roumania .	1934/5	21.7	11.5	10.5	45.2	11.1	—
	1935/6	22.8	12.3	12.1	44.9	7.9	—
Yugoslavia .	1934/5	28.2	16.9	7.7	37.0	10.2	—
Bulgaria .	1935	23.2	13.8	—	42.9	20.1	—
	1936	19.1	14.9	—	43.4	22.6	—
Greece .	1934/5	23.7	9.8	—	30.8	35.4	0.3
	1935/6	23.4	7.4	—	30.6	38.3	0.3

As will be seen, taxes on commodities in various forms made up 55 to 65 per cent of revenue. These figures do not, however, convey a true picture of the prevalence of indirect taxation. In the case of some countries (e.g. Poland) the figures in the first column include taxes that are only nominally direct; in all cases taxes on house rents were an important portion of direct taxes. In considering these facts it must be remembered that the usual basis of taxation, such as profits, wages, rents, etc., was largely absent in the agricultural sector, which comprised 75-80 per cent of the total population of those countries. Agricultural production was carried on on millions of scattered small holdings, where tax assessment and collection would have been an unmanageable task. Moreover, the peasant is a

reluctant taxpayer, though his attitude is perhaps not altogether unjustified in the circumstances. Consequently, in addition to the more usual types of excise on drink and tobacco, the Exchequer in those countries also levied consumption taxes on the few mass consumption articles bought by the agricultural section of the population: flour, salt, matches, lamp oil, sugar, etc. These taxes were usually collected through a State monopoly for the production of such commodities or by an excise tax. The relative importance of these sources of taxation may be seen from the fact that in the Balkan countries excise on sugar yielded a larger revenue than taxes on business profits and on personal incomes taken together. Receipts from State monopolies accounted for 22 per cent of all revenue in Roumania and 26 per cent in Yugoslavia.

This system of taxation had serious economic and social effects. Taxes of a progressive incidence formed such a small part of revenue that their effect on the distribution of the burden of public expenditure was negligible, even at the relatively high and rising rates of income tax levied in recent years. On the other hand, the heavy taxing of mass consumption articles hit hardest the low income groups, especially those in rural areas, where expenditure on such articles made up the bulk of the peasant's cash expenditure. By and large, 50 per cent of the cash disbursement of the Balkan peasant went into indirect taxes and rates; and the figure is, if anything, an underestimate. The fiscal system has thus been a strong contributory cause to such diverse symptoms of backwardness as malnutrition, lack of agricultural equipment, and a low level of consumption of manufactures coupled with idle capacity in the consumer goods industries.

The implications for the future are clear. It would be manifestly impossible to use the existing fiscal system as an instrument for promoting a constructive economic and social policy. Indeed, as it stands it might easily nullify the effects of measures taken in other fields. The first requirement would seem to be a change in the structure of public expenditure, with a reduction in the proportion of expenditure on defence and administration. As this is largely a political question, we merely draw attention to its primary importance.

Another change concerns the method of financing public investment. Even in the past, few countries in the area were

able to finance public expenditure on capital out of current revenue; in the face of the greatly increased requirements for public investment that source would obviously prove even less adequate in the future. On the other hand, the practice of issuing long-dated bonds which had to be carried largely on short-term funds of the money market, and frequently even on funds borrowed by the market from the central bank, was patently wasteful from a fiscal point of view, while its monetary effect was virtually the same as that of direct credit expansion. It would seem preferable to issue such bonds only to the extent to which the public is prepared to lend its accumulated personal savings to the government on long term, and to depend for the balance on short-term borrowing from the market, as part of a centrally directed monetary policy. The technique of financing particular types of development, whether through special accounts (e.g. for road building, etc.) or through general-purpose capital budgets, could easily be adapted to each particular case. Some of the countries of the area have already made use in the past of special budgets for such types of capital development as road-building, water conservancy, public utilities, etc. The method has the advantage of being flexible and would lend itself well for projects of regional utility.

Besides such budgetary changes, it would seem equally desirable to recast the system of taxation. That is evidently a matter of policy, but certain changes appear indispensable in any case. One such change is the widening of the basis of direct taxation, with particular stress on the progressive taxation of personal incomes. (This would have to be accompanied by measures for checking the widespread habit of tax evasion.) Growing industrialization and an extension of the co-operative system in agriculture would facilitate this policy. Furthermore, while it would not be practicable to do away with taxes on consumption altogether, it is highly desirable that they should be shifted away from the low income groups. This might be achieved by exempting from taxation some essential foodstuffs and consumption articles, or possibly by introducing the system of tax-free "utility goods." Re-organized on such lines, the fiscal instrument could become a powerful means for guiding both consumption and investment in accordance with an agreed economic policy, and for stimulating their action upon one another.

It would be idle to expect any quick realization of such reforms. The existing fiscal system has deep-seated roots in economic structure, and economic structure cannot be rebuilt in a day. There are also such intangible factors to contend with as tradition, prejudice, mistrust and ignorance, as well as lack of administrative experience. But conditions such as these make a reorganization of public finance, both in its policy and in its technique, all the more essential. We have seen throughout our study how closely interlinked are the several sectors of the economic and social structure, and that no isolated action in any one sector could be expected to succeed by itself. Public finance forms no exception. Yet there are few spheres of public policy in which a constructive approach would yield speedier results. None is likely so fully to secure the willing co-operation of the peoples of the region; and that is the one condition upon which any programme of development must stand or fall.

(For additional information see Appendix).

*Sources* (in addition to those quoted in the text):

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## WEIGHTS AND MEASURES

	METRIC UNITS	BRITISH OR U.S. EQUIVALENTS	BRITISH OR U.S. UNITS	METRIC EQUIVALENTS
LENGTH . . .	1 metre (m.) 1 kilometre (km. = 1,000 m.)	{ 3.2808 feet 1.0936 yard 0.6214 mile	1 foot 1 yard 1 mile	0.3048 m. 0.9144 m. 1.6093 km.
SURFACE . . .	1 hectare (ha. 10,000 sq. m.) 1 sq. kilometre (sq. km. = 100 ha.)	2.4711 acres 0.3861 sq. mile	1 acre 1 sq. mile	0.4047 ha. 2.59 sq. km.
CAPACITY . . .	1 litre (l.) 1 cubic metre	{ 1.76 Imp. pint 0.22 Imp. gallon 1.057 U.S. quart 0.264 U.S. gallon 1.3079 cubic yard	1 Imp. pint 1 Imp. gallon 1 U.S. quart 1 U.S. gallon 1 cubic yard	0.5682 l. 4.546 l. 0.9464 l. 3.785 l. 0.7646 cubic m.
WEIGHT . . .	1 kilogram (kg.) 1 quintal (q. = 100 kg.) 1 ton (metric) (t. = 10 q.)	2.2046 lb. avoirdupois 1.968 cwt. 1.1023 short ton 0.9842 long ton	1 lb. avoirdupois 1 cwt. 1 short ton 1 long ton (20 cwt.)	0.4536 kg. 50.8 kg. 0.9072 t. 1.0160 t.
RAILWAY AND TRANSPORT	1 passenger-km. 1 ton-km.	0.621 passenger-mile 0.685 short-ton-mile 0.612 long-ton-mile	1 passenger-mile 1 short-ton-mile 1 long-ton-mile	1.6093 passenger-km. 1.46 ton-km. 1.6352 ton-km.

## AREA AND POPULATION

1937	AREA	POPULATION	DENSITY OF POPULATION
	(000 sq. km.)	(000)	(per sq. km.)
Poland . . .	389	34,600	88.9
Czechoslovakia . .	140	15,250	108.9
Austria . . .	84	6,695	79.7
Hungary . . .	93	9,035	97.1
Roumania . . .	295	19,600	66.4
Yugoslavia . . .	248	15,400	62.1
Bulgaria . . .	103	6,300	61.2
Greece . . .	130	7,000	53.8

AGE DISTRIBUTION OF POPULATION  
(As percentage of total population)

	0-15	15-30	30-45	45-65	65-
Poland . . .	34.4	29.2	18.2	14.2	4.0
Czechoslovakia . .	26.3	28.5	20.5	18.1	6.6
Austria . . .	21.3	23.1	24.3	22.7	8.6
Hungary . . .	27.5	27.9	20.7	17.5	6.4
Roumania . . .	34.7	29.3	17.5	13.8	4.7
Yugoslavia . . .	34.6	27.4	17.9	14.7	5.4
Bulgaria . . .	35.4	25.5	18.9	14.8	5.4
Greece . . .	32.1	28.4	17.5	15.9	6.1

## VITAL STATISTICS

1938	BIRTH RATE	DEATH RATE	NATURAL INCREASE	GROSS REPRODUCTION RATE	NET REPRODUCTION RATE
Poland . . .	24.5	13.8	10.7	1.50 (1934)	1.11
Czechoslovakia . .	16.8	12.8	4.0	2.204 (1929-32)	0.939
Austria . . .	14.0	14.1	-0.1	0.865 (1931-32)	0.714
Hungary . . .	20.1	14.4	5.7	1.215 (1932-35)	1.008
Roumania . . .	29.6	19.2	10.4	N.A.	N.A.
Yugoslavia . . .	26.7	15.6	11.1	N.A.	N.A.
Bulgaria . . .	22.8	13.7	9.1	1.673 (1933-36)	1.192
Greece . . .	25.9	13.3	12.6	N.A.	N.A.



MORTALITY AND SOME TYPICAL CAUSES OF DEATH  
(per 10,000)

	AUSTRIA 1932	CZECHO- SLOVAKIA 1937	HUNGARY 1936	GREECE 1935	ROU- MANIA 1935
General mortality .	132	159	143	149	211
Deaths by:					
Pulmonary T.B. .	13.0	11.0	12.7	11.2	14.8
Other forms of T.B. .		1.4	2.5	2.5	3.1
Syphilis . . . . .	—	0.5	0.4	0.1	0.9
Heart diseases . . . .	23.7	20.3	18.4	6.2	11.3
Pneumonia . . . . .	11.8	12.8	15.0	20.6	33.8
Intestinal diseases . .	1.3	4.5	8.0	12.9	18.0
Puerperal fever, mis- carriage, sepsis at childbirth . . . . .	—	23.0	24.6	26.4	26.7
Congenital debility and malformation . . . .	4.6	7.8	10.7	7.2	36.7

*Source:* German Statistical Yearbook, International Section.

HEALTH SERVICES

Year: 1937 or latest available

	NUMBER OF DOCTORS	PER 10,000 INHABI- TANTS	NUMBER OF HOSPITAL BEDS	PER 10,000 INHABI- TANTS
Poland . . . . .	12,427	3.7	72,000	21
Czechoslovakia . . .	11,257	7.5	82,000	55
Austria . . . . .	7,806	11.4	N.A.	N.A.
Hungary . . . . .	10,380	11.2	47,800	53
Roumania . . . . .	(8,800)	4.6	44,000	23
Yugoslavia . . . . .	4,147	3.1	21,000	15
Bulgaria . . . . .	2,945	4.9	13,199	22
Greece . . . . .	N.A.	N.A.	16,000	23

*Source:* National Statistics.

**OVERSEAS EMIGRATION**  
(Gross emigration, in round figures)

**A. Before 1914<sup>1</sup>**

	YEARLY AVERAGE 1901-10	1913
Austria-Hungary . . .	234,000	313,600
Congress Poland . . .	25,000	—
Serbia and Montenegro . .	15,000	—
Bulgaria . . . . .	7,000	—
Greece . . . . .	25,000	38,000
Roumania (Old Kingdom)	Negligible	—
	306,000	—

<sup>1</sup> The combined pre-1914 territories here given do not correspond exactly to the total area of the post-1919 States.

**B. INTER-WAR PERIOD**

	YEARLY AVERAGE 1921-30	YEARLY AVERAGE 1931-37
Poland . . . . .	54,500	20,400
Czechoslovakia . . . .	13,500	2,600
Austria . . . . .	6,000	2,000
Hungary . . . . .	4,600	1,050
Roumania . . . . .	10,900	1,700
Yugoslavia . . . . .	13,600	(1,500)
Bulgaria . . . . .	(5,000)	400
Greece . . . . .	(12,000)	3,100
	120,100	32,750

*Sources:* Ferenczi, International Migrations; National Statistics; German Statistical Year Book, International Section.

“PROJECTED POPULATION” AT FIVE-YEAR INTERVALS, 1940-70 (In thousands to three significant figures)

	1940	1945	1950	1955	1960	1965	1970
Austria . . .	6,660	6,720	6,720	6,680	6,580	6,450	6,280
Czechoslovakia . . .	15,300	15,500	15,600	15,600	15,500	15,200	14,900
Hungary . . .	9,160	9,320	9,440	9,510	9,530	9,470	9,330
Bulgaria . . .	6,320	6,550	6,790	7,000	7,170	7,280	7,320
Greece . . .	7,180	7,530	7,830	8,100	8,350	8,570	8,640
Poland . . .	35,200	36,700	38,100	39,400	40,400	41,000	41,400
Roumania . . .	20,300	21,300	22,200	23,100	24,000	24,800	25,300
Yugoslavia . . .	15,200	15,800	16,400	17,100	17,700	18,200	18,500

Source: The Future Population of Europe and the Soviet Union, League of Nations, 1944

#### EMPLOYMENT ACCORDING TO MAIN BRANCHES

	CENSUS YEAR	TOTAL POPULATION (000)	TOTAL ACTIVE POPULATION		EMPLOYED IN		
			(000)	As % of total population	AGRICULTURE %	INDUSTRY AND MINING %	OTHER OCCUPATIONS %
Poland . . .	1931	32,107	15,006	46.7	64.9	16.9	18.2
Czechoslovakia . . .	1930	14,730	6,850	46.5	39.2	38.2	22.6
Austria . . .	1933	6,760	3,390	50.1	36.1	34.4	29.5
Hungary . . .	1930	8,688	3,823	44.0	53.1	23.8	23.1
Roumania . . .	1930	18,053	10,543	58.4	78.2	10.0	11.8
Yugoslavia . . .	1931	13,934	6,683	48.0	76.3	10.7	13.0
Bulgaria . . .	1934	6,078	3,341	55.0	82.0	8.4	9.6
Greece . . .	1928	6,205	2,745	44.2	53.7	28.2	18.1

Note—Because of different norms used in the occupational classification by the various national statistics, the figures given above are not strictly comparable.

## REGISTERED UNEMPLOYMENT

COUNTRY	YEAR	NUMBERS
Poland . . . .	1937	347,000
Czechoslovakia . . . .	1937	408,000
Austria . . . .	1936	350,000
Hungary . . . .	1938	47,400
Roumania . . . .	1938	10,800
Yugoslavia . . . .	1937	21,600
Bulgaria . . . .	N.A.	N.A.
Greece . . . .	N.A.	N.A.

Explanation: Poland, Czechoslovakia, applications for work registered; Hungary, applications for work; Austria, Roumania; Yugoslavia, unemployed registered.

## FOREIGN TRADE FIGURES

A. Value of exports and imports; balance of trade;  
exports and imports of foodstuffs.

(Year: 1937)

(In million dollars)

	TOTAL EXPORTS	TOTAL IMPORTS	BALANCE OF TRADE + or -	NET EXPORTS OF FOOD- STUFFS	NET IMPORTS OF FOOD- STUFFS
Poland .	260	236	+ 24	50.1	—
Czechosl.	383	382	+ 1	—	14.8
Austria .	232	272	- 40	—	66.7
Hungary .	165	140	+ 25	91.1	—
Roumania	276	148	+ 128	86.6	—
Yugoslavia	167	120	+ 47	60.4	—
Bulgaria	59	63	- 4	28.5	—
Greece .	94	137	- 43	—	20.6
	1,636	1,498	+ 138	316.7	102.1

B. Foreign trade per head of population, and as percentage of estimated national output.

(Year: 1937)

	EXPORTS PER HEAD	IMPORTS PER HEAD	EXPORTS AS % OF GROSS NATIONAL INCOME	IMPORTS AS % OF GROSS NATIONAL INCOME
	(In U.S. \$)	(In U.S. \$)	(Approx.)	(Approx.)
Poland .	7.51	6.82	8	7.5
Czechosl. .	25.11	25.05	15.5	15.5
Austria .	34.65	40.62	21	25
Hungary .	18.26	15.49	20.5	17.5
Roumania.	14.08	7.55	23	12
Yugoslavia	10.84	7.79	19	14
Bulgaria .	9.36	10.00	15	16
Greece .	13.43	19.59	17	25

C. Intra-regional trade in relation to total foreign trade.

(Average 1936-38)

	INTRA-REGIONAL IMPORTS AS A PERCENTAGE OF TOTAL IMPORTS	INTRA-REGIONAL EXPORTS AS A PERCENTAGE OF TOTAL EXPORTS
Poland . . .	8.5	11.2
Czechoslovakia† .	15.4	22.3
Austria* . . .	41.5	35.5
Hungary† . . .	40.0	30.8
Roumania . . .	33.5	27.4
Yugoslavia . . .	29.4	30.6
Bulgaria . . .	19.1	13.7
Greece† . . .	19.5	10.8

\* Average 1936-7 only      † 1937 & 1938 (first four months)

‡ Average 1937-8 only

Compiled from Europe's Trade, League of Nations, 1941

RECOMMENDED DIETARY ALLOWANCES<sup>1</sup>  
Food and Nutrition Board, National Research Council (U.S.A.)

	CALORIES	PROTEIN	CALCIUM	IRON	VITAMIN A <sup>2</sup>	THIAMIN (B <sub>1</sub> )	RIBO-FLAVIN	NIACIN (Nicotinic Acid)	ASCORBIC ACID (Vit. C)	VITAMIN D
		grams	grams	mg.	I.U.	mg. <sup>3</sup>	mg.	mg.	mg. <sup>3</sup>	I.U.
Man (70 kg.):										
Sedentary . . .	2500	70	0.8	12	5000	{ 1.5 1.8 2.3 }	2.2	15	75	•
Moderately active . . .	3000						2.7	18		
Very active. . .	4500						3.3	23		
Woman (56 kg.):										
Sedentary . . .	2100	60	0.8	12	5000	{ 1.2 1.5 1.8 }	1.8	12	70	•
Moderately active . . .	2500						2.2	15		
Very active. . .	3000						2.7	18		
Pregnancy (latter half) .	2500	85	1.5	15	6000	1.8	2.5	18	100	400-800
Lactation . . .	3000	100	2.0	15	8000	2.3	3.0	23	150	400-800
Children up to 12 years:										
Under 1 year <sup>4</sup> . . .	100/kg.	3-4/kg.	1.0	6	1500	0.4	0.6	4	30	400-800
1-3 years <sup>5</sup> . . .	1200	40	1.0	7	2000	0.6	0.9	6	35	•
4-6 years . . .	1600	50	1.0	8	2500	0.8	1.2	8	50	
7-9 years . . .	2000	60	1.0	10	3500	1.0	1.5	10	60	
10-12 years . . .	2500	70	1.2	12	4500	1.2	1.8	12	75	•
Children over 12 years:										
Girls:										
13-15 years . . .	2800	80	1.3	15	5000	1.4	2.0	14	80	•
16-20 years . . .	2400	75	1.0	15	5000	1.2	1.8	12	80	
Boys:										•
13-15 years . . .	3200	85	1.4	15	5000	1.6	2.4	16	90	
16-20 years . . .	3800	100	1.4	15	6000	2.0	3.0	20	100	

<sup>1</sup> Tentative goal toward which to aim in planning practical dietaries; can be met by a good diet of natural foods. Such a diet would also provide other minerals and vitamins, the requirements for which are less well known.

<sup>2</sup> Requirements may be less if provided as vitamin A; greater if provided chiefly as the pro-vitamin carotene.

<sup>3</sup> 1 mg. thiamin equals 33 I.U.; 1 mg. ascorbic acid equals 20 I.U.

<sup>4</sup> Needs of infants increase from month to month. The amounts given are for approximately 6-8 months. The amounts of protein and calcium needed are less if derived from human milk.

<sup>5</sup> Allowances are based on needs for the middle year in each group (as 2, 5, 8, etc.) and for moderate activity.

<sup>6</sup> Vitamin D is undoubtedly necessary for older children and adults. When not available from sunshine it should be provided probably up to the minimum amounts recommended for infants.

### RECOMMENDED DIETS (Plans I and II)

FOOD GROUPS	KILOGRAMS PER PERSON PER YEAR	
	PLAN I	PLAN II
Grain products . . . . .	104	88
Milk (as fluid) . . . . . (litres)	217	240
Starch-rich tubers, roots, fruits	82	68
Mature leguminous seeds and nuts . . . . .	11	6
Vitamin C-rich fruits . . . . .	36	43
Leafy, green, yellow vegetables	36	70
Other vegetables and fruits . . . . .	54	88
Meats, fish, poultry . . . . .	41	54
Eggs . . . . . (numbers)	228	276
Sugars . . . . .	16	16
Fats . . . . .	23	23

Source: United Nations Conference on Food and Agriculture, Hot Springs. Section Reports, Cmd. 6461.

## NUTRITION IN CZECHOSLOVAKIA

Calories, protein content and vitamins in pre-war nutrition.

	DAILY CONSUMPTION	CALORIES	PROTEIN CONTENT	VITAMIN A	THIAMIN (B <sub>1</sub> )	RIBO-FLAVIN	NICOTINIC ACID	ASCORBIC ACID
	grams		grams	I.U.	mg.	mg.	mg.	mg.
Bread	450	1,014	36.0	245	1.35	0.49	14.7	0
Meat	120	180	24.0	60	0.14	0.07	6.0	0
Fats	59.0	531	0	295	0	0	0	0
Milk	0.51 (litre)	335	17	550	0.33	1.12	5.0	10.0
Eggs	0.63 (piece)	47	3.5	315	0.05	0.11	1.0	0
Potatoes	260	234	5.2	0	0.31	0.13	2.6	31.0
Peas and Beans	6	20	1.4	6	0.03	0.02	0.06	0
Vegetables	123	49	2.5	1,230	0.12	0.07	0.62	49.0
Jam	3	1	0	3	0	0	0	0
Fruit	12	4	0	12	0.01	0	0	0
Sugar	82	336	0	0	0	0	0	0
Rice, Semolina, etc.	20	60	2	0	0.02	0	0.3	0
		2,811	91.6	2,716	2.36	2.01	30.28	90.0

Source: Czechoslovak Medical Association in Great Britain, Bulletin No. 4.



## NUTRITION LEVELS IN CZECHOSLOVAKIA

A. Variations of dietary according to occupation, at similar levels of income.  
(Nutritive values per head and per day)

	WAGE- EARNER	SALARIED EMPLOYEE	CIVIL SERVANT
Animal protein . . . (grams)	42.8	43.9	40.5
Vegetable protein . . . ( „ )	44.8	35.9	36.6
Protein total . . . ( „ )	87.6	79.8	77.1
Fats . . . ( „ )	107.2	99.9	98.6
Carbohydrates . . . ( „ )	516.3	440.0	424.9
Caloric value . . . (calories)	3,384	2,980	2,899
Number of kg. of cereals to 1 kg. of meat . . . (kilos)	3.12	2.63	3.04

Compiled on the basis of figures published by the Czechoslovak Statistical Office.

## B. Variations of dietary at different levels of income.

INCOME PER HEAD <sup>1</sup>	CALORI- FIC VALUE	TOTAL PROTEIN	ANIMAL PROTEIN	FATS	CARBO- HY- DRATES	CEREALS TO 1 KG. OF MEAT
(In Czech Crowns)		gr.	gr.	gr.	gr.	kg.
6-8,000 . . .	2,899	77.1	40.5	98.6	424.9	3.04
18-20,000 . . .	3,077	93.8	59.7	119.1	409.9	1.92

<sup>1</sup> Families of civil servants.

## C. Change in consumption at changing income.

	100 % INCREASE IN INCOME	LOSS OF INCOME THROUGH UNEMPLOY- MENT
	per cent.	per cent.
Bread . . . . .	-15.4	+13
Meat and Fish . . . . .	+56.6	-42
Fats . . . . .	-9.6	-25
Milk . . . . .	+30.3	-4
Butter . . . . .	+60.8	-22.6
Eggs . . . . .	+58.7	-31.8
Potatoes . . . . .	-15.8	+23
Sugar . . . . .	-2.3	-59.4

Source: League of Nations Report on Nutrition; *International Labour Review*.

## NUTRITION IN ROUMANIA

## A. Peasant families.

(Daily consumption per consumption unit: in nutritive values).

NUTRIENTS	QUANTITY			PERCENTAGE	
	TOTAL	ANIMAL ORIGIN	VEGETABLE ORIGIN	ANIMAL ORIGIN	VEGETABLE ORIGIN
Proteins. . (gr.)	127.6	37.3	90.3	29.2	70.8
Fats. . . (gr.)	99.9	66.0	33.9	66.1	33.9
Carbohydrates . (gr.)	670.4	19.4	651.0	2.9	97.1
Physiological Calories	4,091.1	822.3	3,268.8	20.1	79.9
Net Calories .	3,681.9	—	—	—	—

## B. Composition of above diet according to food groups

(In percentages)

(In percentages.)

	PROTEINS	FATS	CARBO-HYDRATES	CALORIES
I. Animal Sources . . .	29.2	66.1	2.9	20.1
Meat . . . . .	13.9	13.5	*	4.7
Fats . . . . .	0.4	31.7	*	7.0
Milk . . . . .	9.8	13.2	2.7	5.9
Cheese . . . . .	3.6	5.9	0.1	1.8
Other animal foods. .	1.6	1.8	0.1	0.6
II. Vegetable Sources . .	70.8	33.9	97.1	79.9
Cereals . . . . .	59.4	21.6	83.9	67.2
(Maize . . . . .)	33.2	17.5	46.7	38.6
Vegetable oil . . . .	—	7.4	—	1.6
Sugar . . . . .	—	—	1.5	1.0
Fruit . . . . .	1.0	2.6	2.7	2.5
Dried vegg. & potatoes .	6.6	0.6	6.9	5.5
Fresh vegetables . . .	3.7	1.3	2.0	2.0
Other vegetable foods .	1.0	0.3	0.1	0.1

\* Negligible

Source: Dr. I. C. Georgescu, L'alimentation de la population paysanne en Roumanie.

(Based on a sample investigation into the diet of 265 peasant families in 59 villages.)

Nutrition of industrial wage-earners in Roumania at two different levels of income.

SAMPLE INVESTIGATION BASED ON 70 FAMILIES  
(Consumption per family<sup>1</sup> and per month.)

	CATEGORY I Income: Lei 4,000-5,500 per month	CATEGORY II Income: Lei 7,000-11,000 per month
	kg.	kg.
Bread and flour . . . . .	74.4	71.2
(Maize flour . . . . .)	56	28)
Potatoes . . . . .	28	16
Sugar . . . . .	3	4
Meat (all kinds) . . . . .	11.2	16
Milk and milk products . . . . .	54	90
Eggs (piece) . . . . .	28	28
Animal fats and vegetable oil . . . . .	8	10
Vegetables <sup>2</sup> . . . . .	15	11

<sup>1</sup> Families with 2-3 children.

<sup>2</sup> Haricot beans and tomatoes only.

Source: *Conjunctura Economiei Romanesti*, February 1940.

LAND UTILISATION

(Year: 1938)

(In percentages)

	TOTAL AREA IN THOUSAND HECTARES	AGRICULTURAL AREA			NON-AGRICULTURAL AREA	
		ARABLE LAND	MEADOWS AND PASTURE	OTHER AGRICUL- TURAL LAND	WOODS AND FORESTS	OTHER LAND
Poland . . . . .	38,860	47.7	16.7	1.4	21.4	12.8
Austria . . . . .	8,390	23.5	26.8	1.6	37.5	10.6
Czechoslovakia . . . . .	14,050	41.7	16.6	1.2	32.6	7.9
Hungary . . . . .	9,310	60.2	17.4	3.6	11.9	6.9
Yugoslavia . . . . .	24,750	30.5	25.1	2.7	31.4	10.3
Roumania . . . . .	29,500	45.6	14.8	2.1	21.5	16.0
Bulgaria . . . . .	10,310	39.6	3.0	1.6	29.1	26.7
Greece . . . . .	13,000	16.9	9.0	2.0	18.5	53.6
Total for region	148,170	40.0	16.7	1.9	24.8	16.6

Source: International Yearbook of Agricultural Statistics, Rome.

## ARABLE CROP ROTATION

	(In thousand hectares)						(In percentages)			
	ARABLE LAND	CEREALS	FIELD CROPS AND GRASS	ROOTS AND VEGE- TABLES	OTHER CROPS AND FALLOW	CEREALS	FIELD CROPS	ROOTS AND VEGE- TABLES	OTHER CROPS AND FALLOW	
Poland . . . . .	18,560	11,810	1,340	3,440	1,970	63.6	7.2	18.6	10.6	
Austria . . . . .	1,970	1,180	200	340	250	59.9	10.2	17.2	12.7	
Czechoslovakia . . . . .	5,860	3,530	930	1,130	270	60.3	15.9	19.2	4.6	
Hungary . . . . .	5,610	4,200	460	530	420	74.9	8.2	9.4	7.5	
Yugoslavia . . . . .	7,550	6,180	280	640	340	81.9	3.7	5.9	8.5	
Roumania . . . . .	13,440	11,270	680	410	1,080	83.9	5.1	3.0	8.0	
Bulgaria . . . . .	4,090	2,790	70	110	1,120	68.2	1.7	2.7	27.4	
Greece . . . . .	2,200	1,710	70	70	350	77.7	3.2	3.2	15.9	

Based on International Yearbook of Agricultural Statistics, Rome.

### FLUCTUATION OF YIELDS (Average 1929-38=100)

	Product	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Poland . . .	Winter Rye	107.1	104.4	87.6	95.6	108.0	101.8	100.9	96.5	87.6	108.8
Austria . . .	Winter Wheat	94.4	99.4	89.4	95.6	113.1	97.5	108.1	94.4	100.0	110.1
Czechoslovakia .	Winter Wheat	102.3	100.6	78.5	101.8	128.5	86.9	101.8	94.8	95.4	115.7
Hungary . . .	Winter Wheat	99.3	98.5	89.1	83.2	120.4	83.9	100.0	107.3	96.4	121.2
Yugoslavia . . .	Maize	107.2	86.2	80.2	113.8	84.4	116.2	73.1	115.0	118.6	103.6
Roumania . . .	Maize	123.2	94.4	118.5	115.8	87.0	89.8	96.3	99.0	85.2	94.4
Bulgaria . . .	Winter Wheat	69.4	105.8	116.5	85.9	99.2	71.1	97.5	113.2	111.6	127.3
Greece . . .	Winter Wheat	77.5	58.8	62.5	96.3	140.0	110.0	108.8	80.0	118.8	142.5

**OUTPUT OF MAIN CEREAL AND FOOD CROPS**  
(In thousand tons)

	WHEAT			BARLEY		
	1925-29	1930-34	1937	1925-29	1930-34	1937
Poland .	1,647	2,021	1,926	1,396	1,446	1,363
Czechosl. .	1,294	1,461	1,395	1,290	1,236	1,115
Austria .	308	344	400	238	277	288
Hungary .	2,165	2,082	1,964	595	636	557
Roumania .	2,872	2,815	3,760	1,644	1,602	917
Yugoslavia	2,204	2,163	2,347	378	412	383
Bulgaria .	1,102	1,439	1,767	266	323	330
Greece .	333	501	818	147	189	219

  

	RYE			MAIZE		
	1925-29	1930-34	1937	1925-29	1930-34	1937
Poland .	6,186	6,462	5,638	88	85	103
Czechosl. .	1,668	1,792	1,485	243	237	343
Austria .	511	576	477	113	134	206
Hungary .	764	724	618	1,801	1,860*	2,770*
Roumania .	271	349	451	4,535	5,195	4,752
Yugoslavia	188	209	209	3,055	4,039	5,336
Bulgaria .	186	246	238	667	790	859
Greece .	39	56	65	163	206	323

  

	POTATOES		
	1925-29	1930-34	1937
Poland .	26,458	30,733	40,221
Czechoslovakia	8,640	9,146	12,363
Austria .	2,265	2,628	3,612
Hungary .	2,018	1,816*	2,960*
Roumania .	2,065	1,853	2,107
Yugoslavia .	1,141	1,457	1,601
Bulgaria .	38	72	146
Greece .	39	85	193

\* = Estimate.

Source: Statistical Year Book, League of Nations.

# INDICES OF AREA, YIELD AND PRODUCTION OF CEREALS IN CENTRAL AND EASTERN EUROPE

(1909-13=100)

	1920	1922	1924	1925	1926	1933-37
<b>AUSTRIA</b>						
Area .	72.4	76.5	82.8	83.7	86.0	87.9
Yield .	72.5	79.4	87.0	108.4	100.0	122.1
Production .	52.4	60.9	72.0	90.9	85.9	107.4
<b>BULGARIA</b>						
Area .	90.3	93.3	97.8	101.0	100.6	111.3
Yield .	107.1	103.5	90.6	123.5	117.6	142.4
Production .	96.8	96.8	89.2	125.7	118.7	160.0
<b>CZECHOSLOVAKIA</b>						
Area .	82.8	81.9	81.4	81.9	82.7	91.0
Yield .	83.2	109.2	108.4	130.5	116.8	127.5
Production .	68.9	89.4	88.2	107.0	96.7	116.0
<b>GREECE</b>						
Area .	73.5	63.1	77.5	93.2	89.5	118.1
Yield .	89.4	87.2	72.3	74.5	77.7	96.8
Production .	65.6	55.0	56.3	69.5	69.9	114.1
<b>HUNGARY</b>						
Area .	84.9	98.9	98.9	99.2	101.2	103.8
Yield .	78.4	77.7	81.3	110.1	103.6	105.8
Production .	66.2	76.5	80.5	108.7	104.5	109.5
<b>POLAND</b>						
Area .	71.0	90.7	93.8	93.5	94.6	104.4
Yield .	104.4	116.8	118.6	98.2	108.8	100.9
Production .	74.4	105.8	110.8	91.6	103.3	105.6
<b>ROUMANIA</b>						
Area .	84.4	94.5	101.2	103.5	102.8	114.3
Yield .	86.7	77.5	60.0	71.7	99.2	81.7
Production .	72.9	73.6	60.6	74.6	101.6	93.1
<b>YUGOSLAVIA</b>						
Area .	89.5	95.1	96.1	98.6	96.0	120.7
Yield .	88.2	75.6	111.8	122.7	115.1	112.6
Production .	78.8	72.0	107.3	120.8	110.4	136.3

Source: Agricultural Production in Continental Europe, League of Nations, 1943.

INTENSITY OF FARMING  
(Year: 1938)

	CULTIVATED LAND	CEREALS AND PULSES	MEADOWS, PASTURE, AND FEED CROPS	ROOT, INDUSTRIAL AND GARDEN CROPS	FALLOW
	(In thousand hectares)	%	%	%	%
Poland . . .	25,590	47.8	31.1	16.6	4.5
Czechoslovakia . .	8,360	43.7	38.9	16.6	0.8
Austria . . .	4,360	28.3	60.2	11.0	0.5
Hungary . . .	7,560	57.3	28.6	12.7	1.4
Roumania . . .	18,450	61.9	27.4	8.1	2.6
Yugoslavia . . .	14,440	43.2	45.5	8.6	2.7
Bulgaria . . .	4,570	67.2	8.4	13.9	10.5
Greece . . .	(3,630)	51.4	33.8	14.8	—

Based on International Yearbook of Agricultural Statistics, Rome.

FOREST RESOURCES

COUNTRY	FOREST AREA			CONIFERS	BROAD- LEAVED TREES	MIXED WOOD
	1,000 HECTARES	PERCENT- AGE OF TOTAL AREA	PER HEAD OF POPU- LATION	PERCENTAGE OF TOTAL FOREST AREA		
Poland . . .	8,352	21.5	0.25	75.0	25.0	—
Czechoslovakia . .	4,643	33.0	0.31	63.7	36.3	—
Austria . . .	3,138	37.4	0.46	83.7	16.3	—
Hungary . . .	1,175	12.6	0.13	6.0	94.0	—
Roumania . . .	7,134	24.2	0.38	25.0	75.0	—
Yugoslavia . . .	7,642	30.6	0.52	10.9	74.7	14.4
Bulgaria . . .	2,971	28.8	0.49	10.9	86.8	2.3
Greece . . .	2,407	18.5	0.36	13.1	59.4	27.5

Source: International Yearbook of Forestry Statistics, Rome, 1938.

## INDICES OF INDUSTRIAL OUTPUT

		1929	1932	1936	1937	1939
<b>POLAND</b>						
1928=100	Total industry .	101.9	63.7	94.3	110.7	119.5
	Production goods	99.5	56.6	103.1	127.3	140.0
	Consumer goods	100.8	67.1	93.0	102.7	109.0
	Machines . .	97.1	54.9	103.6	130.0	148.6
	Textiles . .	87.3	60.7	97.6	108.0	112.8
<b>CZECHOSLOVAKIA</b>						
1929=100	Total industry .	100	63.5	80.2	96.3	—
	Metals . .	100	40	76	106	—
	Textiles . .	100	68	91	102	—
	Foodstuffs .	100	99	95	89	—
<b>AUSTRIA</b>						
1929=100	Total industry .	100	61	86	106	—
<b>HUNGARY</b>						
1929=100	Total industry .	100	81.9	118.4	129.5	126.5
	Production goods	100	57.7	96.4	110.4	115.5
	Consumer goods.	100	93.6	129.1	138.8	137.0
	Textiles . .	100	104.6	178.9	193.4	160.8
<b>ROUMANIA</b>						
1929=100	Total industry .	100	89	130	132	132
	Production goods	100	101	133	132	131
	Consumer goods.	100	81	130	134	127
	Textiles . .	100	129	157	170	146
<b>YUGOSLAVIA</b>						
1926/30	Mining . .	111.6	92.2	111.1	127.8	143.3
=100	Foundry . .	109.4	83.3	154.1	147.2	190.8
<b>BULGARIA</b>						
1934/5	Total industry .	—	—	—	142.7	155.4
=100	Production goods	—	—	—	133.3	128.4
	Consumer goods (food)	—	—	—	183.9	178.5
<b>GREECE</b>						
1928=100	Total industry .	101.8	102.7	141.7	153.9	168.1
	Metals . .	74.8	93.2	80.8	82.4	81.2
	Textiles . .	100.6	120.4	180.3	186.9	199.0

Source: *Monthly Bulletin*, League of Nations.



## HANDICRAFTS AND SMALL INDUSTRY

	YEAR	STATISTICAL CLASSIFICATION	NUMBER OF ESTABLISHMENTS	NUMBER OF PERSONNEL EMPLOYED (INCLUDING PRINCIPALS)
Poland .	1937	Artisan licences issued	373,529	1,177,858
Czechosl. .	—	(Not available)	—	—
Austria .	1935	Small industries <sup>1</sup>	149,953	284,418
Hungary .	1930	Handicrafts	185,000	335,000
Roumania.	1930	Small industries <sup>1</sup>	130,434	234,162
Yugoslavia	1933	Artisan enterprises	142,304	(275,000)
Bulgaria .	1931	Artisan enterprises	69,232	134,932
Greece .	1939	Small industries <sup>1</sup>	70,644	145,391

<sup>1</sup> Employing fewer than 5 persons.

Source: National Statistics.

## OUTPUT OF ELECTRICITY

(Year: 1937)

	IN MILLION k.w.h.	PER HEAD OF POPULATION (k.w.h.)
Poland . . . .	3,356	97
Czechoslovakia. . . .	4,000	267
Austria . . . .	3,000	448
Hungary . . . .	1,080 (1938)	118
Roumania . . . .	1,077	55
Yugoslavia . . . .	912	60
Bulgaria . . . .	N.A.	N.A.
Greece . . . .	243	35

Source: National Statistics.

IMPORTS OF OVERSEAS RAW MATERIALS  
(Net imports, 1935)  
(In thousand tons and million U.S. \$)

	COTTON Tons U.S.\$	WOOL Tons U.S.\$	JUTE Tons U.S.\$	HIDES Tons U.S.\$	RUBBER Tons U.S.\$	COPPER Tons U.S.\$	TIN Tons U.S.\$
Poland, including							
Danzig . . .	66.3 21.6	18.5 9.5	14.6 1.3	24.5 5.5	4.5 1.4	10.9 1.8	— —
Czechoslovakia .	78.6 25.0	24.9 18.7	33.9 3.1	12.4 1.0	11.4 2.9	19.7 6.7	1.3 1.5
Austria . . .	34.7 11.0	9.4 5.8	11.0 0.9	1.9 0.3	3.7 1.1	14.2 2.5	0.6 0.7
Hungary . . .	22.6 7.3	0.8 0.7	11.5 1.1	4.3 5.0	1.9 0.5	8.1 1.5	0.5 0.6
Roumania . . .	6.4 2.0	0.5 0.5	4.2 0.4	— —	0.8 0.2	4.5 0.9	0.3 0.3
Yugoslavia . .	14.9 5.0	3.0 1.5	1.4 0.1	6.5 1.8	— —	*36.7 7.6	0.3 0.4
Bulgaria . . .	6.3 2.0	1.3 1.0	0.5 0.1	2.0 0.1	0.3 0.1	0.7 0.2	0.2 0.2
Greece . . .	7.1 2.1	3.7 2.0	2.6 0.3	2.8 0.2	0.4 0.1	— —	0.2 0.2
TOTAL . . .	236.9 76.0	62.1 39.7	79.7 7.3	54.4 13.9	23.0 6.3	21.4 6.0	3.4 3.9
Percentage of total imports (value)	6.9%	3.6%	0.7%	1.3%	0.6%	0.3%	0.4%

\* Exports.

Compiled from Europe's Trade, League of Nations, 1941.

## TONNAGE OF MERCHANT FLEET

(Year: 1939).

	GROSS TONS
Greece . .	1,890,000
Yugoslavia . .	410,000
Poland . .	112,000
Roumania . .	108,000
Bulgaria . .	17,500
Hungary . .	10,000

Source: National Statistics.

NOTE: The bulk of the Greek, and the greater part of the Yugoslav, merchant fleet consisted of tramp steamers plying between foreign ports. The average age of these vessels was about 25 years.

The Greek fleet suffered heavy losses during the invasion of Greece. In 1942 the remaining total tonnage was estimated at 930,000 tons.

## EXTERNAL TRAFFIC OF FOUR DANUBIAN COUNTRIES (In thousand tons)

	IMPORTS			EXPORTS		
	RAIL	DANUBE	ROAD	RAIL	DANUBE	ROAD
<b>HUNGARY</b>						
1935 . . . .	1,752	844	190	1,295	295	47
1936 . . . .	2,081	938	239	1,484	556	36
1937 . . . .	2,467	704	243	1,755	644	35
1938 . . . .	2,229	578	177	1,300	535	33
	RAIL	DANUBE	SEA	RAIL	DANUBE	SEA
<b>ROUMANIA</b>						
1935 . . . .	175	104	254	1,124	1,488	6,664
1936 . . . .	268	93	269	1,357	1,688	7,504
1937 . . . .	310	111	288	1,659	1,514	6,464
1938 . . . .	369	111	341	1,159	1,272	4,973
<b>YUGOSLAVIA</b>						
1935 . . . .	188	291	502	1,208	436	1,683
1936 . . . .	121	349	501	1,075	584	1,209
1937 . . . .	129	385	501	1,869	1,063	1,625
1938 . . . .	209	435	626	1,610	635	1,457
<b>BULGARIA</b>						
1935 . . . .	29	129	118	75	45	207
1936 . . . .	38	139	106	76	181	312
1937 . . . .	39	158	130	100	221	366
1938 . . . .	60	179	143	145	111	244

Source: *Süd-Ost Economist*, Budapest.

TREND OF DANUBE TRAFFIC AT THE IRON GATES  
(1913-1938)

IN THOUSAND TONS		IN THOUSAND TONS		IN THOUSAND TONS	
1913	.	463	1924	.	1932
1916	.	1,684	1925	.	1933
1917	.	1,274	1926	.	1934
1918	.	636	1927	.	1935
1920	.	330	1928	.	1936
1921	.	253	1929	.	1937
1922	.	391	1930	.	1938
1923	.	389	1931	.	
				509	
				354	
				520	
				993	
				832	
				725	
				947	
				1,510	
					1,182
					1,029
					1,310
					1,562
					1,850
					1,805
					1,362

NOTE: Although no complete figures exist on the total traffic per year, the trend of traffic is reflected by the yearly volume of transport passing at the Iron Gates. The figures for upstream traffic given above may be taken to represent roughly two-thirds of the total *international* traffic going upstream. The figures for downstream traffic are much smaller and show also wide year-to-year fluctuations.

Source: Traffic returns of International Danube Commission.

COMMERCIAL FLEETS ON THE DANUBE  
(Spring 1940)

COUNTRY	TUGS	BARGES		TANKERS	
		NUMBER	CAPACITY*	NUMBER	CAPACITY*
Roumania . . . . .	127	553	469,546	66	41,603
Germany. . . . .	57	534	332,460	85	63,718
Great Britain . . . . .	7	23	29,335	35	25,232
Belgium . . . . .	5	5	4,584	—	—
Bulgaria . . . . .	2	11	10,790	4	1,760
France . . . . .	15	57	51,353	14	9,847
Greece . . . . .	39	69	68,907	—	—
Holland . . . . .	4	33	23,336	31	22,652
Hungary . . . . .	35	240	140,123	16	11,058
Italy . . . . .	3	3	4,288	—	—
Slovakia . . . . .	13	136	99,593	12	10,354
Yugoslavia . . . . .	75	375	316,137	41	31,478
	382	2,039	1,550,452	304	217,702

\* Metric Tons.

Source: *Affaires Danubiennes*, quoted in South-Eastern Europe, Royal Institute of International Affairs, 1940.

## RAILWAY ROLLING STOCK

(Year: 1937)

	ENGINES		GOODS WAGONS	
	IN THOUSANDS	NUMBER PER 100 KM. OF TRACK	IN THOUSANDS	NUMBER PER 100 KM. OF TRACK
Poland . . . . .	5.8	28.4	160.0	784.3
Czechoslovakia . . . . .	4.7	30.3	96.6	623.2
Austria . . . . .	2.7	32.9	36.0	439.0
Hungary . . . . .	1.8	20.7	40.8	468.9
Roumania. . . . .	3.6	30.3	57.6	484.0
Yugoslavia . . . . .	2.5	24.5	58.4	572.6
Bulgaria . . . . .	0.6	18.2	11.2	339.4
Greece . . . . .	0.4	14.8	8.5	314.8

Source: National Statistics.

## ESTIMATED FIXED AND VARIABLE COSTS FOR RAILWAYS, ARTIFICIAL WATERWAYS, ROAD TRANSPORT AND AIR TRANSPORT

(As percentage of total cost)

MEANS OF TRANSPORT	FIXED COSTS				VARIABLE COSTS		
	INTER-EST	DEPRECIATION	OPERATION	TOTAL	TRANSPORT COSTS PROPER	OTHERS	TOTAL
Railways . . . . .	15	15	31	61	17	22	39
Artificial Waterways . . . . .	28	7	9	44	28	28	56
Road Transport . . . . .	8	23	12	43	41	16	57
Air Transport. . . . .	6	26	18	50	30	20	50

Source: C. Pirak, Verkehrsprobleme der Gegenwart. *Verkehrstechnische Woche*, 28th August and 4th September, 1929.

FAMILY BUDGETS AT VARYING LEVELS OF INCOME<sup>1</sup>  
A. Expenditure on consumption

	Year	Total Consumption Expenditure P.A.	Expenditure on Food	Expenditure on Housing	Expenditure on Clothing	Miscellaneous Expenditure
			%	%	%	%
Poland.	1929	Zl. 3,410	57.2	12.5	17.3	13.0
Czechoslovakia	1931/2	Kc. 14,611	54.7	16.2	13.4	15.7
Austria	1934	Sch. 3,044	50.3	16.0	9.8	23.9
Hungary	1929	Pengo 2,726	52.9	18.0	10.2	18.9
Bulgaria	1927/8	Leva 41,611	50.2	22.9	12.8	14.1

<sup>1</sup> Urban wage-earners.

B. Subdivision of expenditure on food

	Bread and Cereals	Meat and Fish	Fats and Oils	Milk and Milk Products	Vegetables and Fruit	Miscellaneous
	%	%	%	%	%	%
Poland.	27.0	24.7	8.4	15.9	10.3	13.7
Czechoslovakia	17.7	21.5	8.3	19.7	8.7	24.1
Austria	19.0	22.6	9.8*	17.7*	11.2	19.7
Bulgaria	36.4	17.4	7.2	11.4	13.6	14.0

\* Butter included with fats and oils.

## C. Changing consumption patterns with rising level of income

	YEARLY CONSUMPTION EXPENDITURE	EXPENDITURE ON FOOD	EXPENDITURE ON HOUSING	EXPENDITURE ON CLOTHING	MISCELLANEOUS EXPENDITURE
POLAND, 1929 Families grouped according to income per consumption unit.	Below Zł. 600	% 65.9	% 11.8	% 14.9	% 7.4
	600-900 Zł.	61.8	12.3	15.5	10.4
	900-1,200 Zł.	55.5	12.2	17.7	14.6
	Over 1,200 Zł.	48.5	13.7	20.9	16.9
CZECHOSLOVAKIA, 1931/2. Families grouped according to family income.	Below Kc. 10,000	63.2	15.5	11.0	10.3
	10,000-13,000	59.5	15.6	11.4	13.5
	13,000-16,000	56.4	16.4	13.0	14.2
	16,000-20,000	55.1	16.4	13.1	15.4
	20,000-25,000	51.8	16.8	13.8	17.6
	25,000-30,000	50.9	14.4	16.1	18.6
AUSTRIA, 1934 Families grouped according to family income.	Below Sch. 2,000	60.5	21.3	4.5	13.7
	2,000-3,000	55.0	17.4	7.9	19.8
	3,000-4,000	51.1	17.4	8.4	23.1
	4,000-5,000	46.3	13.0	12.8	27.8
	5,000-6,000	42.0	12.9	17.0	28.1
BULGARIA, 1927/8 Families grouped according to family income.	Below Leva 36,000	56.0	20.8	10.5	12.7
	36,000-48,000	50.1	22.7	12.0	15.2
	48,000-60,000	48.8	21.6	14.2	15.4
	60,000-72,000	43.3	30.2	15.9	10.5
	72,000-84,000	42.6	28.4	19.6	9.3
	84,000-96,000	39.5	28.1	18.5	13.8

Source: I.L.O. Year Book 1942.



RETAIL TRADE ACCORDING TO PRODUCTS (Based on number of firms)  
A. POLAND

	%
Foodstuffs . . . . .	57.3
Clothing . . . . .	20.4
Building materials and fuel . . . . .	4.5
Iron and metal goods . . . . .	3.6
Chemical products . . . . .	3.3
Furniture, household goods . . . . .	2.6
Paper, books, periodicals . . . . .	2.2
Miscellaneous . . . . .	6.1

Source: Concise Statistical Year Book of Poland.

B. ROUMANIA

	BUCAREST DISTRICT	OLTENIA (MAINLY RURAL)
	%	%
Food products . . . . .	57.2	64.7
Drugs and chemical products . . . . .	2.3	1.5
Books and stationery . . . . .	2.4	0.8
Textiles . . . . .	7.7	12.7
Leather goods . . . . .	2.6	2.6
Timber, wood and building materials . . . . .	3.0	2.1
Ironware, household goods, etc. . . . .	5.1	2.6
Miscellaneous . . . . .	19.7	13.0

Source: *Argus*, Bucarest.

C. BULGARIA (Location and products)

	TOTAL NUMBER OF FIRMS	PER 10,000 IN- HABITANTS	FIRMS IN TOWNS	PER 10,000 IN- HABITANTS	FIRMS IN VILLAGES	PER 10,000 IN- HABITANTS
All trades . . . . .	40,888	67	22,655	114	18,233	37.9
Agricultural products . . . . .	5,241	8.6	2,957	23	2,284	4.8
Fuel . . . . .	1,475	2.4	1,121	8.6	354	6.7
Ironware . . . . .	1,039	1.7	977	7.5	62	0.1
Glassware and china . . . . .	453	0.7	398	3.1	55	0.1
Woodware . . . . .	145	0.2	141	1.1	4	0.01
Textiles . . . . .	2,085	3.4	1,512	11.5	573	1.2
Leather goods . . . . .	320	0.5	310	2.4	10	0.02
Foodstuffs . . . . .	4,087	6.7	2,480	19.1	1,607	3.4
Dressmaking . . . . .	2,042	3.3	1,917	14.8	125	0.3
Chemists' shops . . . . .	701	1.1	583	4.5	118	0.2
Paper . . . . .	1,634	2.7	1,475	11.3	159	0.4

Source: Bulgarian Statistical Year Book.

MEASURES OF STATE INTERVENTION IN MARKETING  
(Situation in 1937)

NOTE: The immediate cause of Government intervention in the sphere of distribution was the world agricultural crisis, and most measures were taken with the primary object of protecting the producer from the disastrous effects of the price slump. The present list gives only those measures affecting marketing proper, as distinct from price-fixing at the production end, subsidies and output restrictions.

POLAND.

Wholesale and retail prices were fixed for cereals, meat, milk, lard and butcher's pork.

To promote orderly marketing, loans were granted on special terms against warehoused stocks of corn, hops, flax fibres, etc.

The National Industrial & Cereals Company (an official organisation) held the sole right of exporting the wheat surplus and had also a certain part in regulating the distribution of grain on the internal market.

CZECHOSLOVAKIA.

The Czechoslovakia Grain Company held a monopoly for buying and selling home-grown grains and for importing and exporting wheat, rye, barley, oats, maize and most kinds of fodder. The C.G.C. was a semi-public corporation. It was registered as a joint stock company, the share capital of which was subscribed as follows: 40% by the agricultural co-operatives, 20% by the consumers' co-operatives, 20% by the Association of Flour Millers, and 20% by representatives of private trade interests. The Chairman of the company was appointed by the Government.

A milk marketing scheme was introduced in 1934 when a Government decree fixed prices for the producer, wholesaler, distributor and retailer. In 1937 a price equalisation fund was established for eggs.

In 1932 a monopoly was granted to a syndicate of importers for the import of dairy produce, eggs, cattle, meat, lard, animal fats, bacon and ham.

HUNGARY.

State monopolies, operated through the co-operative organisation, were in existence for the export of grains, the internal marketing and export of home-grown wool, and the export of butter, lard and other produce. The storage and marketing of wine was under State control.

Milk and cattle marketing for supplying the Hungarian capital was regulated by a special scheme.

**YUGOSLAVIA.**

The Prizad Company, founded in 1930, exercised supervision over the marketing of wheat and maize, for which it fixed prices and allocated export quotas. From time to time the Company made intervention purchases on behalf of the Government and marketed surplus stocks abroad. The majority of the share capital in the Company was held by the State, the balance being distributed among co-operative societies and private traders.

An organisation for the control of livestock exports was run on similar lines.

**ROUMANIA.**

The marketing of wheat was under the control of a Government organisation which had authority to fix prices, to buy stocks and to effect sales abroad.

Special marketing schemes were in operation for the export of certain animal products.

**BULGARIA.**

The Office of Grain Export was organised by the Government about 1926 for the purchase of the marketable output of wheat at fixed prices, the marketing of the export surplus and sales for domestic consumption.

The Export Institute had, among other things, the function of supervising the grading of exported produce and providing information on foreign markets.

**GREECE.**

The Government controlled the assembly and import of wheat, which was re-sold to millers for processing.

A semi-official organisation undertook the warehousing and orderly marketing of wine crops.

Control was exercised over the marketing of citrus fruit and figs, through the medium of compulsory growers' associations.

Distributive margins were fixed for certain articles of prime necessity.

Compiled from various sources.

## CO-OPERATIVE SOCIETIES ENGAGED IN DISTRIBUTIVE ACTIVITIES (Year: 1937)

## A. AGRICULTURAL CO-OPERATIVE SOCIETIES

	CO-OPERATIVE CREDIT SOCIETIES			NON-SPECIALISED SUPPLY AND SALE CO-OPERATIVE SOCIETIES		
	NO. OF SOCIETIES	NO. OF MEMBERS	SALES Swiss Fr.	NO. OF SOCIETIES	NO. OF MEMBERS	SALES Swiss Fr.
Poland .	3,736	816,007	(000) —	3,573	437,836	(000) 167,479
Czechosl. .	6,080	1,440,784	—	1,475	333,597	257,225
Austria .	1,839	315,535	—	143	N.A.	N.A.
Hungary .	1,008	421,507	—	1,482	636,000	82,267
Roumania.	4,638	905,420	—	1,699	198,830	N.A.
Yugoslavia	4,283	414,645	2,840	2,183	197,717	2,845
Bulgaria .	1,899	216,538	16,739	1,524	175,808	16,739
Greece .	4,327	193,901	3,468	758	18,101	54
	SPECIALISED MARKETING CO-OPERATIVE SOCIETIES			CO-OPERATIVE DAIRIES <sup>1</sup>		
	NO. OF SOCIETIES	NO. OF MEMBERS	SALES Swiss Fr.	NO. OF SOCIETIES	NO. OF MEMBERS	SALES Swiss Fr.
Poland .	1,603	644,715	(000) 80,417	1,560	642,118	(000) 75,019
Czechosl. .	1,104	152,788	52,172	500	89,786	48,118
Austria .	1,520	N.A.	N.A.	N.A.	N.A.	N.A.
Hungary .	953	110,462	N.A.	947	110,462	N.A.
Roumania.	207	20,377	N.A.	—	—	—
Yugoslavia	1,021	36,222	2,842	200	17,081	1,408
Bulgaria .	116	26,448	N.A.	38	2,939	N.A.
Greece .	863	38,888	6,125	77	843	56 <sup>2</sup>

<sup>1</sup> Included also in specialised marketing societies.<sup>2</sup> Total trade.

## B. CONSUMERS' CO-OPERATIVE SOCIETIES

	NUMBER OF SOCIETIES	NUMBER OF MEMBERS	TRADE Swiss Francs	TOTAL OF BALANCE SHEETS Swiss Francs
			(000)	(000)
Poland. . .	1,976	373,516	98,710	26,499
Czechoslovakia . .	816	805,544	203,798	88,885
Austria . . .	222	263,000	67,963	23,000
Hungary . . .	3	127,428	30,040	17,408
Roumania . . .	106	29,063	N.A.	2,694
Yugoslavia . . .	138	86,983	19,409	10,950
Bulgaria . . .	154	84,449	20,324	7,270
Greece. . .	N.A.	N.A.	N.A.	N.A.

Source: *International Labour Review*, August-September, 1939.

## INTERNATIONAL COMPARISONS OF GENERAL PRICE LEVEL

Average for period 1925-34

(U.S.A. = 100)

Poland . . . . .	52
Czechoslovakia . . . . .	75
Austria . . . . .	64
Hungary . . . . .	86
Greece . . . . .	53

(Roumania, Yugoslavia and Bulgaria: no figures available;  
roughly estimated 66.)

Source: Colin Clark, *The Conditions of Economic Progress*.

BALANCES OF PAYMENTS, 1927-1937<sup>1</sup> (Yearly Averages in Million Gold Dollars)

	GOODS		INTEREST AND DIVIDEND		SERVICES		TOTAL CURRENT ITEMS		LONG-TERM CAPITAL	
	INWARDS	OUTWARDS	INWARDS	OUTWARDS	INWARDS	OUTWARDS	INWARDS	OUTWARDS	INWARDS	OUTWARDS
Poland	186.5	190.6	1.8	30.5	66.5	43.3	254.8	264.4	29.9	19.9
Czechoslovakia	357.1	331.3	11.2	24.0	43.7	36.9	412.0	392.2	42.3	36.6
Hungary	108.5	113.2	1.6	18.5 <sup>2</sup>	16.3 <sup>3</sup>	17.0	126.4	148.7	28.6	10.6
Roumania	132.3	110.9	(1.6)	(17.6)	(12.0)	(9.5)	(145.9)	(138.0)	—	—
Yugoslavia	83.6	83.5	0.0	(12.5)	(30.6)	(10.8)	(114.2)	(106.8)	—	—
Bulgaria	34.1	32.5	0.3	4.9	6.5 <sup>4</sup>	7.5	40.9	44.9	4.7	0.4
Greece <sup>5</sup>	56.1	101.9	13.5	15.0	39.4	11.7	109.0	128.6	—	—

<sup>1</sup> No figures available for Austria.<sup>2</sup> Average 1927-36.<sup>3</sup> Average 1927-35.<sup>4</sup> Average 1927-31.<sup>5</sup> All figures for Greece, with the exception of goods, average 1929-37.

(By courtesy of Dr. T. Lychowski.)

RELATIVE COST OF "STANDARD FOOD BASKETS" IN OCTOBER, 1938<sup>1</sup> (Great Britain = 100)

	BASKET I	BASKET II	BASKET III	BASKET IV	BASKET V	BASKET VI
Poland	.	72.8	75.5	79.1	74.1	69.6
Czechoslovakia	.	88.5	86.2	92.1	90.0	80.3
Austria	.	178.9	176.1	183.1	167.3	153.8
Hungary	.	122.4	124.7	132.0	128.1	118.0
Bulgaria	.	91.9	90.9	91.2	91.4	87.7

<sup>1</sup> No figures available for Roumania, Yugoslavia and Greece. The food prices being converted to Swiss francs at official rates, the figures make no allowance for invisible currency depreciations.

Source: International Labour Office, International Comparisons of Food Costs, Montreal 1941.

## COLIN CLARK'S ESTIMATES OF (REAL) NATIONAL INCOME

	PERIOD	NATIONAL INCOME IN INTERNATIONAL UNITS <sup>1</sup>	REAL INCOME PER HEAD OF WORKING POPULATION IN INTERNATIONAL UNITS*
		(000,000)	
Poland . . .	1925-34	3,430	352
Czechoslovakia . . .	"	2,680	455
Austria . . .	"	1,613	572
Hungary . . .	"	1,205	359
Roumania . . .	1925-39	1,471	243
Yugoslavia . . .	1925-34	1,352	330
Bulgaria . . .	"	524	284
Greece . . .	1924, 1929, 1934	922	397

<sup>1</sup> "International Unit" is defined as amount of goods and services that could be purchased for \$1 in the U.S. over the average of the decade 1925-34.

\* The corresponding figures for Great Britain and the United States of America for 1925-34 are 1,069 and 1,368 respectively.

Source: Colin Clark, *The Conditions of Economic Progress*, London, 1940.

CAPITAL ACCUMULATION IN BULGARIA  
(In million leva)

	COMPANIES AND CORPORATNS.	BANK DEPOSITS	INSURANCE RESERVE FUNDS	BUILDING	TOTAL
1921-25 .	1,687	4,237	—	4,287	10,211
1926-30 .	3,512	5,675	361	4,937	14,485
1931-35 .	1,267	194	351	5,178	6,990
1936-40 .	796	6,054	324	6,446	13,620
	7,262 16%	16,160 36%	1,036 2%	20,848 46%	45,306 100%

Source: *Süd-Ost Economist*, Budapest, January 2nd, 1942.

### INVESTMENT FLUCTUATIONS IN POLAND (Index of Investment).

	CREDITS FOR BUILDING	GENERAL INDEX OF INVESTMENT <sup>1</sup>	VOLUME OF CONSTRUCTION		
			GENERAL INDEX	DWELLINGS (TRANSPORT OF LIME)	OTHER CONSTRUCTIONS (ORDERS FOR STEEL)
	(000 Zl.)				
1928	7,292	100.0	100.0	100.0	100.0
1929	3,814	91.4	84.1	91.3	76.8
1930	10,606	64.8	67.3	73.3	61.2
1931	4,518	45.8	43.6	54.0	33.2
1932	2,658	33.2	32.1	42.6	21.5
1933	2,540	33.6	39.0	47.0	30.9
1934	4,360	38.7	49.2	56.5	41.8
1935	4,070	45.7	55.4	58.2	52.6
1936	3,088	55.5	62.9	67.4	58.4

  

	MACHINERY INVESTMENT			RAILWAY INVESTMENT (CONSTRUCTION OF RAILWAYS & PRODUCTION OF EQUIPMENT)
	GENERAL INDEX	INDUSTRIAL MACHINERY	AGRICULTURAL MACHINERY	
1928	100.0	100.0	100.0	100.0
1929	94.0	98.5	76.2	103.4
1930	60.9	65.1	43.9	63.7
1931	38.5	42.7	21.8	57.5
1932	24.2	27.8	8.8	44.5
1933	22.7	25.8	10.3	33.8
1934	26.7	30.5	11.4	29.8
1935	31.8	36.0	15.0	39.8
1936	40.5	45.4	20.6	54.3

<sup>1</sup> The General Index of Investment is a weighted arithmetic average of building activity, railway investment, and machinery investment.

#### WEIGHTS

BUILDING ACTIVITY				
Dwellings	.	.	.	25
Other Constructions	.	.	.	25
RAILWAY INVESTMENT	.	.	.	25
MACHINERY INVESTMENT				
Industrial Machinery	.	.	.	20
Agricultural	.	.	.	5
				100

Source: Polish Institute for Business Research, *Bulletin No. 1*, 1934.



CURRENCY, DEPOSITS AND SAVINGS  
(In millions of national currency)

	NOTE CIRCULATION	TOKEN COINS	COMMERCIAL BANK DEPOSITS	SAVINGS BANK DEPOSITS
<b>POLAND</b>				
1931 .	1,220	240	985	1,467
1934 .	981	384	952	1,795
1937 .	1,059	438	1,359	2,168
<b>CZECHOSL.</b>				
1931 .	7,679	—	24,986	48,031
1934 .	5,640	377	24,149	45,724
1937 .	6,902	595	24,690	47,646 (1936)
<b>AUSTRIA</b>				
1931 .	1,183	98	(a) 1,691 (1932)	1,805
1934 .	964	109	(a) 1,372	1,938
1937 .	944	125	(a) 1,307 (1936)	2,102 (1936)
<b>HUNGARY</b>				
1931 .	423	66	2,909	533
1934 .	381	70	2,100	364
1937 .	466	79	2,352	358
<b>ROUMANIA</b>				
1931 .	23,750	2,653	(a) 30,206	5,364
1934 .	22,307	3,599	(a) 18,284	5,942 (1933)
1937 .	29,391	4,748	(a) 21,882	—
<b>YUGOSLAVIA</b>				
1931 .	5,172	161	11,733	3,283
1934 .	4,384	994	8,060	4,680
1937 .	5,834	840	7,311	7,289
<b>BULGARIA</b>				
1931 .	2,919	710	4,847	(b) 1,268
1934 .	2,449	1,287	3,230	(b) 2,024
1937 .	2,569	1,253	3,336	(b) 2,858
<b>GREECE</b>				
1931 .	4,003	309	12,712	3,101
1934 .	5,686	348	14,264	4,933
1937 .	6,776	384	16,686	5,979

(a) Including correspondents' accounts.

(b) Post Office Savings Bank only.

Source: Statistical Year Book, League of Nations

DEPOSITS AT VARIOUS TYPES OF CREDIT INSTITUTES  
(In millions of national currency)

	COM- MERCIAL BANKS	SAVINGS BANKS	CO-OP. BANKS AND SAVINGS ASSOCIATIONS	MORTGAGE BANKS	AGRI- CULTURAL BANKS	PUBLIC BANKS		INSURANCE COMPANIES (PREMIUM RESERVES)
						LOCAL GOVT.	CENTRAL GOVT.	
POLAND								
1929	1,090	826	339	—	—	30	315	143
1936	631	1,616	263	—	—	45	485	289
CZECHOSLOVAKIA								
1929	18,630	19,990	16,572	(3,028) <sup>1</sup>	3,641	4,250	—	1,251
1936	16,804	24,689	20,575	(3,116) <sup>1</sup>	4,425	5,561	2,236	3,779
AUSTRIA								
1931	—	—	—	—	—	—	—	—
1936	1,307	2,102	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
HUNGARY								
1931	1,609	—	—	—	—	7	—	N.A.
1936	1,643	308	45	—	—	6	—	N.A.
ROUMANIA								
1931	30,206	—	2,200	N.A.	N.A.	N.A.	N.A.	N.A.
1937	21,882	(4,000)	1,200	N.A.	N.A.	N.A.	N.A.	N.A.
YUGOSLAVIA								
1929	7,229	2,665	N.A.	492	5	N.A.	N.A.	506
1936	6,978	4,372	N.A.	1,241	35	N.A.	N.A.	883
BULGARIA								
1929	6,959	716	1,572	288	359	—	4,310	950
1936	3,359	2,520	2,488	228	558	—	7,176	1,363
GREECE								
1931	12,712	1,084	N.A.	N.A.	N.A.	N.A.	2,017	N.A.
1936	16,686	2,871	N.A.	N.A.	N.A.	N.A.	2,776	N.A.

<sup>1</sup> Trust or Finance Companies.

Source: *Monetary Review*, 1939, League of Nations, and other League of Nations publication

PUBLIC DEBT AND DEBT SERVICE  
(Year: 1937 or financial year 1937-38)  
(In millions of national currency)

	DOMESTIC DEBT		TOTAL	FOREIGN DEBT	INTEREST		REDEMPTION	
	FUNDED	FLOATING			DOMESTIC	FOREIGN	DOMESTIC	FOREIGN
Poland . . .	1,361.8	390.7	1,752.5	2,977.3	95.2	62.0	30.5	27.8
Czechoslovakia.	30,198.2	8,642.5	38,840.7	7,164.6	1,423.2	152.2	185.7	818.3
Austria . . .	1,389.0	120.2	1,509.2	1,972.9	(47.9)	(88.1)	(20.7)	(39.2)
Hungary . . .	105.8	378.7	484.5	1,127.6	32.3		13.9	
Roumania . .	33,094.2	1,501.0	34,595.2	78,478.4	(3,702.2)			
Yugoslavia . .	5,900.0	3,400.0	9,300.0	15,400.0	970.0			
Bulgaria . . .	6,196.3	2,250.2	8,446.5	13,755.2	(326.1) <sup>1</sup> (560.6)		(121.3)	(71.2)
Greece . . .	11,103.4	1,384.6	12,488.0	37,191.8	(3,012.9)		(172.3)	

<sup>1</sup> Interest and redemption figures for Bulgaria are for 1938.

Source: Statistical Year Book, League of Nations.

## INCREASE IN INTERNAL DEBT, 1933-37

(In millions of national currency)

		FUNDED DEBT	FLOATING DEBT	TOTAL
Poland . . .	1933	450	90	540
	1937	1,448	417	1,865
Czechoslovakia . .	1933	23,314	4,439	27,753
	1937	28,015	8,590	36,605
Austria . . .	1933	1,047	94	1,141
	1936	1,412	175	1,587
Hungary . . .	1933	138	281	419
	1937	106	478	584
Roumania . . .	1933	16,805	2,501	19,306
	1937	33,094	1,501	34,595
Yugoslavia . . .	1934	7,594	600	8,194
	1937	8,839	4,920	13,759
Bulgaria . . .	1933	5,582	942	6,524
	1937	6,284	1,902	8,186
Greece . . .	1933	10,037	503	10,540
	1937	11,263	1,225	12,488

Source: German Statistical Year Book, International Section.

CONSUMPTION ARTICLES SUBJECTED TO EXCISE OR STATE MONOPOLY  
(Year: 1935)

	EXCISE DUTY	STATE MONOPOLY		EXCISE DUTY	STATE MONOPOLY
Poland	Sugar Yeast Mineral Oil Beer Wine	Salt Tobacco Spirits Matches	Roum.	Sugar Wine Beer Yeast Oil Products Cement Flour Vegetable Oil Electric Bulbs	Alcohol Tobacco Matches Salt
Czechosl.	Sugar Beer Spirits Coal Yeast	Salt Tobacco Matches	Yugo.	Sugar Beer Wine Spirits Oil Products Electric Light	Salt Tobacco Kerosene Matches
Austria	Sugar Beer Wine Spirits Petrol	Salt Tobacco	Bulgaria	Coal Tobacco Salt Spirits Beer Wine	Matches
Hungary	Sugar Beer Mineral Oil Matches Electric Light	Salt Spirits	Greece	Tobacco Alcohol Wine Malt Gas Electric Current	Matches Petrol Salt

Compiled from Public Finance, League of Nations, 1938.

**DISTRIBUTION OF COMBINED CENTRAL AND LOCAL GOVERNMENT EXPENDITURE**  
(In millions of national currency and as percentage of total expenditure)  
(Year: 1937 or nearest)

	ECONOMIC EXPENDITURE		EDUCATION		PUBLIC WELFARE		DEFENCE	
	(000,000)	%	(000,000)	%	(000,000)	%	(000,000)	%
Poland . . .	719	19.9	422	11.7	159	4.4	1,036	28.8
Czechoslovakia .	3,233	16.0	1,712	8.5	2,056	10.2	5,044	25.0
Austria . . .	193	9.9	272	14.0	386	19.8	210.	10.7
Hungary . . .	194	16.9	175	15.3	89	7.7	156	13.6
Roumania . . .	3,319	8.5	5,819	14.9	2,030	5.2	5,818	14.9
Yugoslavia . . .	950	9.7	1,018	10.4	414	4.2	2,459	25.1
Bulgaria . . .	933	11.5	1,285	15.8	433	5.3	1,730	21.3
Greece . . .	3,851	26.2	956	6.5	867	5.9	2,278	15.5
	ADMINISTRATION		DEBT SERVICE		MISCELLANEOUS		TOTAL NET EXPENDITURE	
	(000,000)	%	(000,000)	%	(000,000)	%	(000,000)	%
Poland . . .	732	20.3	226	6.2	310	8.7	3,605	100.0
Czechoslovakia .	2,592	12.9	2,023	10.0	3,488	17.4	20,147	100.0
Austria . . .	365	18.7	187	9.6	337	17.3	1,950	100.0
Hungary . . .	337	29.4	130	11.3	65	5.8	1,145	100.0
Roumania . . .	9,527	24.4	8,512	21.8	4,022	10.3	39,046	100.0
Yugoslavia . . .	2,070	21.1	1,321	13.5	1,556	16.0	9,788	100.0
Bulgaria . . .	1,749	21.5	2,011 = 24.6%					
Greece . . .	2,102	14.3	3,410	23.2	1,235	8.4	14,699	100.0

Compiled from German Statistical Year Book, International Section  
(For various qualifications regarding comparability of figures, see chapter VI).

## MONETARY MOVEMENTS SINCE 1937

(In millions of national currency)

I. Note Circulation. II. Commercial banks, deposits.  
III. Savings banks, deposits.

		1937	1939	1941	1942	1943
POLAND	I	1,059	1,929 <sup>1</sup>	—	—	—
	II	1,359	—	—	—	—
	III	1,514	—	—	—	—
HUNGARY	I	466	975	1,984	2,958	4,392
	II	2,352	2,685	2,363	2,904	3,321 (Sept.)
	III	358	135 <sup>3</sup>	164	192	228 (Oct.)
YUGOSLAVIA	I	5,834	6,698	15,281 <sup>4</sup>	—	—
	II	—	5,709	—	—	—
	III	2,633	2,265	—	—	—
CZECHOSLOVAKIA <sup>a</sup>	I	6,902	A 6,345	9,398	14,089	24,073
			B 1,392	2,023	2,742	3,532
	II	24,690	A 15,337	—	—	—
			B 5,200	—	—	—
III	43,349	—	—	—	—	—
ROUMANIA	I	29,391	48,800	96,650	117,351	161,600
	II	12,682	15,805	22,900	33,912	34,867 (May)
	III	3,870	3,250	5,439	9,047	11,750 (Sept.)
BULGARIA	I	2,569	4,245	13,467	18,922	22,500
	II	3,336	4,480	} 15,725	23,691	25,259 (April)
	III	9,445	—			
GREECE	I	6,776	9,454	48,798	306,000	1,276,000 (Sept.)
	II	16,686	17,368	—	—	—
	III	5,979	5,813	—	—	—

<sup>1</sup> September 1939<sup>2</sup> A=Bohemia and Moravia, B=Slovakia<sup>3</sup> From 1939 Post Office Savings Bank only<sup>4</sup> March 1941













